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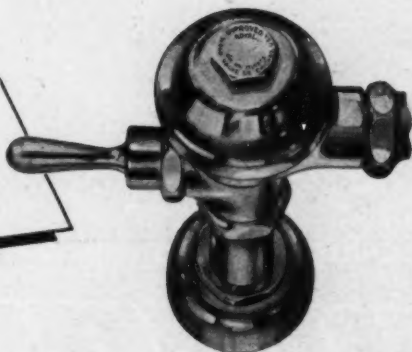
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THE ROVING REPORTER

History Room as Memorial

Room 343 at New Trier Township High School, Winnetka, Ill., is no longer an ordinary classroom. Known today as the memorial history room, it was recently dedicated as a war memorial to the 443 New Trier boys who fought in World War II, including the 15 who gave their lives.

The room continues to serve as a classroom. Its walls contain a photographic mural depicting the major battles and events of the war. The windows have venetian blinds and are hung with gay colored draperies. Geometric patterns are worked out in the tile floor covering. A memorial plaque inscribed with the names of the 443 boys who were in the war hangs on a side wall.

The decoration of the room, together with plans for future endowments of literature and materials of value in the teaching of history, is the outgrowth of a round robin letter written during the early stage of the war by Howard S. Davidson of Winnetka to his son in naval service. Requests to be included on the round robin mailing list came from classmates of the boy and their parents.

Soon the letters grew in size until a publication, *Barracks Breeze*, edited by Mr. Davidson came into being. Upon the suspension of the *Breeze*, which by this time had a circulation of 850, more than \$500 was left in the treasury from parental donations. The *Breeze* backers voted to donate the \$500 for some educational purpose and finally selected the history room project.

Besides serving for history classes, the room will be used by groups, clubs and the Tri-Ship, which is the boys' ruling body for the school.

New Use for Old Trolleys

Members of the P.-T. A. of School No. 30 in Brooklyn, N. Y., decided that their section of Flatbush needed a library for its school children. A survey had shown that this area was one deserving library service but so far none had been established.

Armed with determination, several mothers approached the local board of transportation with a request for some old trolley cars. They were

allowed to select two and were promised a third, this number being the minimum that would serve their purposes. They also obtained permission to use a vacant lot for their project. Getting the old trolleys moved three blocks down a trackless street was another problem.

A tentative plan calls for the placing of the two cars parallel with the hoped-for third car between them to form an H, the middle car to serve as a reading room, the other two for book storage. The Brooklyn Public Library could promise no more than the loan of a few hundred volumes, whereas a small branch library should have 10,000 volumes, the chief librarian declared.

The mothers state that they have only made a beginning and that they will continue to strive for a permanent branch library in the neighborhood, believing it to be an important factor in combating juvenile delinquency. Only elementary school children will use the street car library at first. Pupils from two public schools and one parochial school will benefit by it.

What One Room School Can Do

Even an isolated one room school can become a strong socializing force in its area, as is demonstrated by a rural school in Breathitt County, Kentucky, taught by Bertha Watts. Miss Watts believes that such a school can join hands with the home in helping the child to grow and with the community in working for its betterment.

Ideas in the school are carried over by pupils into the home. Therefore, Miss Watts and her pupils have tried to make their school homelike and beautiful. The older girls made colorful draperies and various persons contributed a mirror, a dressing table, a few pictures and flowers in season. Pupil committees keep the room in order, the floor cleaned, water in the cooler, toilets clean and the school playground free from rubbish. A committee on flowers takes care of the plants which are grown in the school and arranges those brought from home. Every pupil serves on some committee every day.

A study of the community has been made by the pupils with regard to its

resources, industries, transportation, medical facilities and recreation, the education and occupation of parents.

Object lessons in erosion, beautification and sanitation learned at school, through filling the gullies, setting out shrubbery, screening the toilets, have been carried back to the children's homes. Since coal mining is one of the chief industries, arithmetic lessons are built up around gauging a sled or wagon for coal. Other lessons are concerned with measuring acres of ground, estimating the amount of corn in a crib or the bushels of shelled corn grown on the farm while in the ear.

The farm is taken as a project in social studies. Children learn what to cultivate, to pasture, to leave in woodland. Parents learn from children the value of cover crops, how to care for pastures, how to prevent erosion.

The garden project has helped with the school lunch program and has raised the local standards of gardening. The lunch program in turn has been used as a means of health education and of teaching good manners.

The school's books and magazines are available to the community and the older children in the school serve as guardians for the smaller children on the way to and from school.

In all these and countless other ways, this isolated one room school has made itself a strong educative and socializing force in the community.

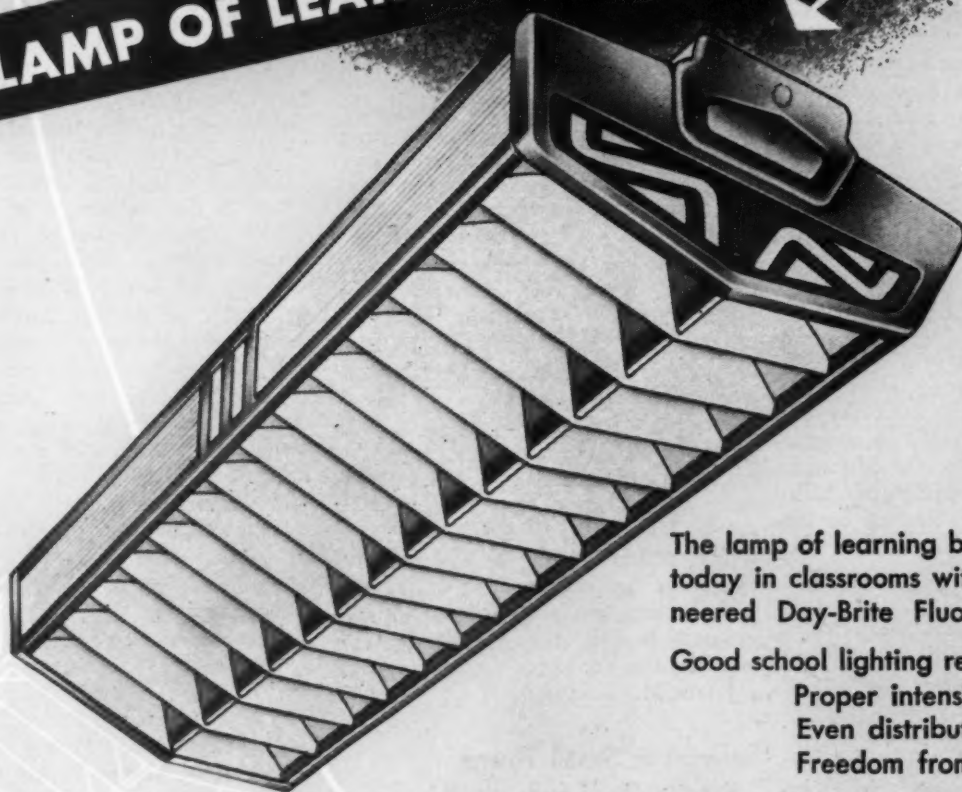
A Train for a Day

The Children's School of the National College of Education in Evanston, Ill., made a special adventure out of "family day" this year, the day when parents are entertained at the school. The school was transformed into a train. The reception hall was the engine and the rest of the school represented the coaches, observation car, lounge car and diner.

Pictures, costumes and souvenirs collected by the families of children on various trips helped provide the fun. The "travelers" were called to a meal in the dining car by chimes, and a conductor punched the tickets of all who had made reservations. There was an exhibit of travel books and periodicals for entertainment and edification of the "passengers."

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QUESTIONS and ANSWERS

Let Them Dance at School

Question: The pupils in a small high school have petitioned the board of education for permission to hold occasional school dances in the gymnasium, supervised by class advisers and parents. No one not enrolled in high school will be allowed to attend.

The president of the board maintains that dancing is a deadly sin. The other five members are inclined to believe that a properly supervised school dance should be permitted, once or twice a year.

Should a 6-0 decision in favor of school dancing be necessary before a school can safely launch a school dance?—H.C.P., Minn.

ANSWER: Public education today must include in its program those activities which are socially and recreationally important in the development of the child. The school must assume its share of the responsibility for sponsoring such activities, particularly when other community agencies do not have the facilities which the school can provide.

In addition to the educational value which well supervised dances have for boys and girls, such affairs also provide an excellent opportunity for school-community cooperation. The necessity for the school and community to assume together responsibility for the education of American youth by utilizing all facilities which are available cannot be too strongly emphasized. The pupils of this high school should be permitted to have school dances.

Boards of education can work better as a unit when the majority vote of the board is the means for determining action on any question. Members will accept the decision of the board as representing what may be best for the school and will subjugate their individual judgments and convictions to that decision.—ALFRED COLBURN.

Extra Study Load

Question: Under what circumstances should a high school pupil be permitted to carry more than a normal load of work? Should there be some requirement as to previous grades or as to need for additional credits in order to be graduated (for a senior)?—A.W.M., Ill.

ANSWER: The policies, regulations and criteria for the approval of secondary schools of the North Central Association of Colleges and Secondary Schools together with the accrediting standards of high schools established by the University of Illinois and the state department of education will answer the issues raised in this question.

Previous grades should be considered in allowing pupils to carry more than the usual load and, as a practical administrative measure, consideration should be given to pupils needing to carry more than a normal load in order to be graduated.

There are many varying factors that make the case of each pupil a special problem. The counseling and guidance personnel of the high school should consider this as one of their assignments.—FRANK A. JENSEN.

Bases of Scholarship Awards

Question: What are the customary principles or bases for awarding scholarships to high school seniors as encouragement to attend college?—N.J.L., Ind.

ANSWER: I suppose that relatively few high schools have funds from which they may award college scholarships. Many states provide scholarships on a competitive examination basis. In addition, almost every college awards some scholarships. The basis for selection is naturally determined by the college. In general, such scholarships are awarded on aptitude as revealed by standardized tests; on evidence of achievement as shown both by high school grades in subject matter and by general information tests, and on the individual's need of assistance. Complete information may generally be had from state departments of education and from college catalogs.—JAMES M. SPINNING.

Salaries in Small Towns

Question: Should grade schools in towns of 1000 to 2500 population have a salary schedule for teachers based on training, experience and other qualifications or should each teacher get the same?—C.M.V., Ill.

ANSWER: The practice of developing salary schedule policies based on training and experience has been widely accepted. If the practice is sound in a large school system (and I believe it is) it is equally sound for small school systems.—PAUL J. MISNER.

Lunch Periods

Question: Can you give suggestions on making schedules so that there will be a continuous day with one group eating while the other goes on with regular classroom work?—J.F.W., Ala.

ANSWER: Arranging for multiple lunch hours with classes scheduled continu-

ously throughout the day is a common practice in class programming in the larger city high schools.

When two lunch periods are employed, it is customary to set up classes so that approximately half of the pupils are in class, in the study halls or are engaged in extracurricular activities, while the other half are at lunch, either at home or at school.

Upon parental request, the programs of children who go home for lunch are arranged so that they can have lunch at the hour which fits in with the family lunch hour. At the end of the first lunch period, those pupils who have been in class, study halls or engaged in activities go to lunch, while the others return to their classes or activities.

Lunch periods are of regular class length so that classes can remain in session a full period. Some activities can be set up for the first lunch period so as to enable the group to bring in outside speakers or to carry out a program of activity which may extend into the second lunch period. Then, on the days on which such activities occur, the members of the group bring their lunches and eat together.

Teacher lunch periods are determined by teachers' schedules of classes but may be adjusted on the basis of health or fatigue factors.

A typical schedule follows.

| | |
|-------------|--|
| 8:45- 9:15 | Homeroom Period |
| 9:15-10:00 | First Period |
| 10:00-10:45 | Second Period |
| 10:45-11:30 | Third Period |
| 11:30-12:15 | Fourth Period (first lunch period) |
| 12:15-12:20 | Go to lockers for supplies |
| 12:20- 1:05 | Fifth Period (second lunch period) |
| 1:05- 1:10 | Go to lockers for supplies |
| 1:10- 1:55 | Sixth Period |
| 1:55- 2:40 | Seventh Period |
| 2:40- 3:25 | Eighth Period (homeroom study, conference or activity) |
| 3:25- 4:00 | Special Help |

—LOWELL P. GOODRICH.

Checking Attendance

Question: What is the best plan for checking attendance in a high school of 500 or more pupils?—O.V.R., Okla.

ANSWER: The major portion of the checking on attendance at Franklin
(Continued on Page 8.)

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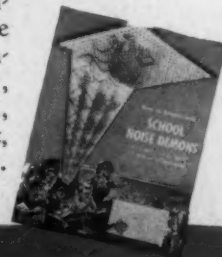
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High School, Portland, Ore., is done by the registration or homeroom teacher. Attendance is taken in the twenty minute registration period at the beginning of the school day. Absences and tardinesses are reported to the school attendance secretary and are recorded by registration teachers on pupils' individual attendance record.

This form carries the individual pupil's program and all the data necessary for contacting the home, as well as a running account of absences and tardinesses with a brief statement of excuses offered by the pupil. Notes from home explaining absences and tardinesses are required within two days.

Attendance irregularities are considered a matter for guidance, first, by the registration teacher and, second, by the counselor, both of whom counsel the pupil through his eight terms of high school. When adjustments are not readily brought about by the teacher, the pupil is referred to the counselor, by sending him the pupil's attendance record.

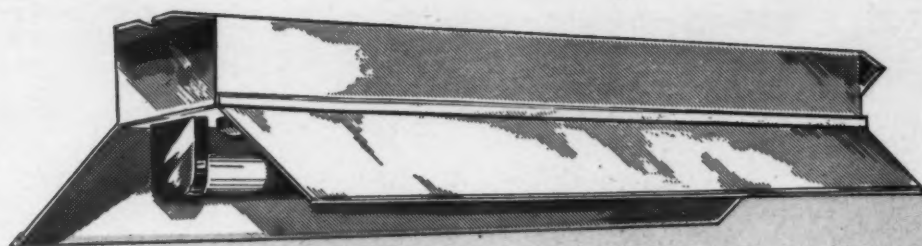
The counselor may make use of the service of the school nurse for investigation of alleged illness and for making home calls. A form letter that ties in with the attendance record is used to advise the parents of a child's whole attendance picture. This has an acknowledgment receipt attached. Parents may also be contacted by telephone and by written requests for conferences.

When disciplinary action is indicated, the attendance record is sent to one of the vice principals, a man for boys and a woman for girls, who may use formal or informal suspension notices to obtain conferences with parents.

When the difficulty persists, the district's attendance department makes home calls and takes the necessary legal steps to obtain compliance with the law.

A morning absentee list is mimeographed and sent to all teachers during the first hour of the day. Absences from class not listed on this sheet must be cleared up by the pupil on his next appearance in class. Pupils unable to supply adequate reasons for absence are referred to the vice principal.

Assistant attendance secretaries fill out and mail postcards notifying parents of absences of two or more days. These have an acknowledgment card attached. When teacher, counselor or vice principal feels that an absence should be investigated, the attendance secretary will do so by telephone or by referral to the attendance officer. Results of such investigation or disciplinary action are briefed and given to the registration teacher for recording on the attendance record. At the end of the year the pupil's attendance record is placed in his "permanent file," which is kept by the counselor.—O. L. WILLS.



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for sale or for serving . . . there's danger in the air.

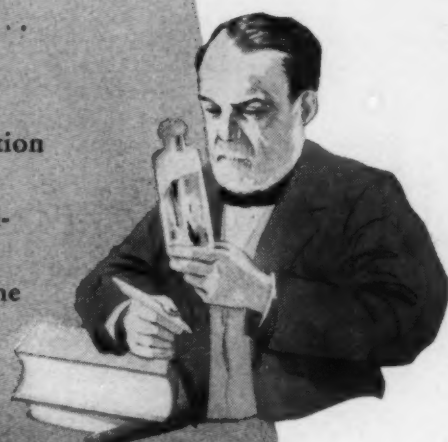
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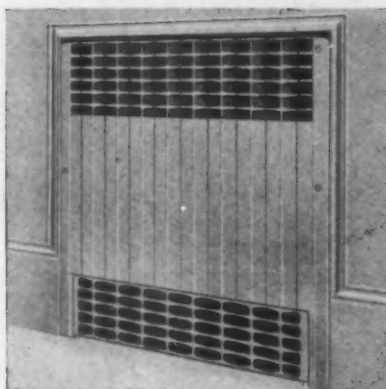


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NORTH BRANCH, MINNESOTA

February 18, 1947

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G. M. Orwoll.

G. M. Orwoll
Supt. of Schools

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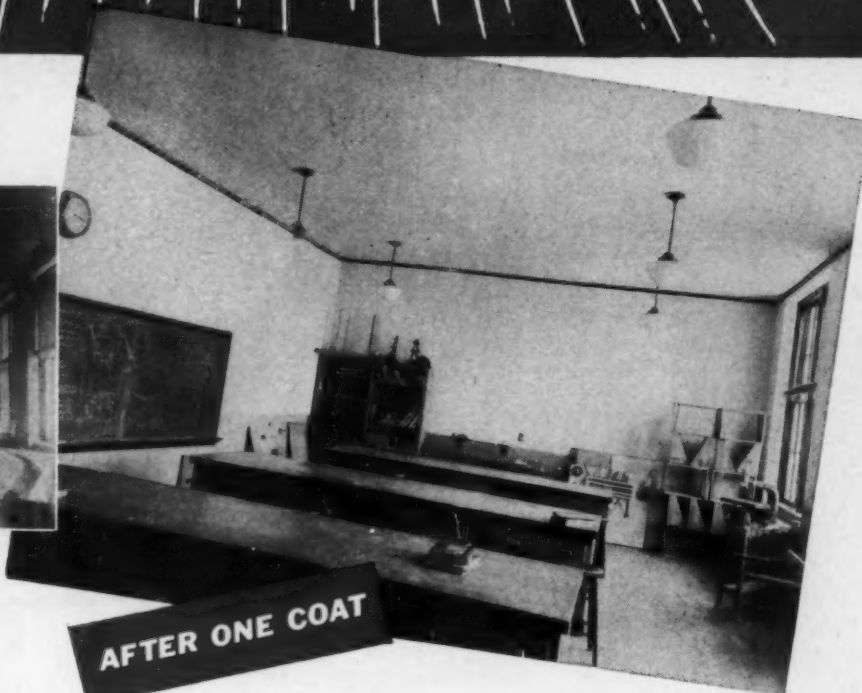
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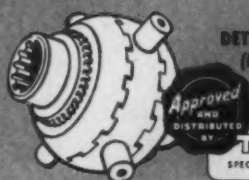
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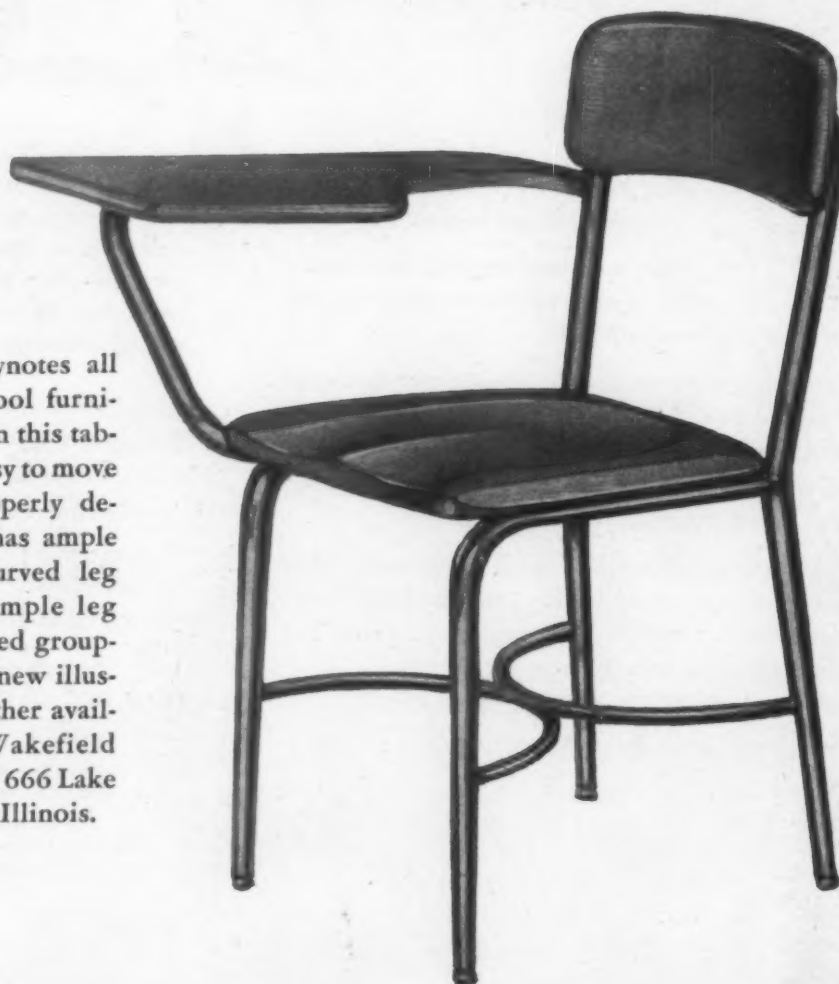
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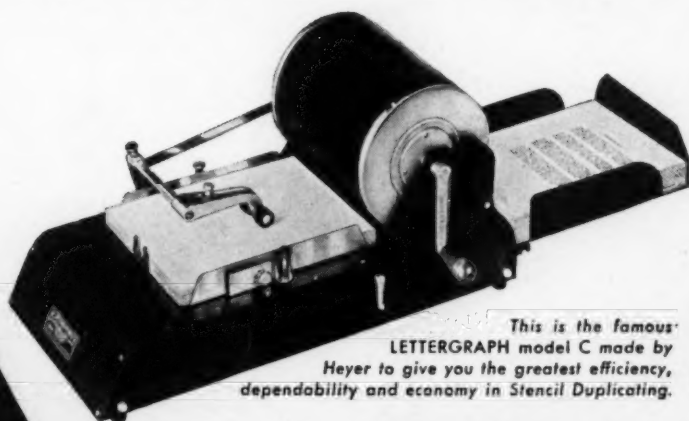


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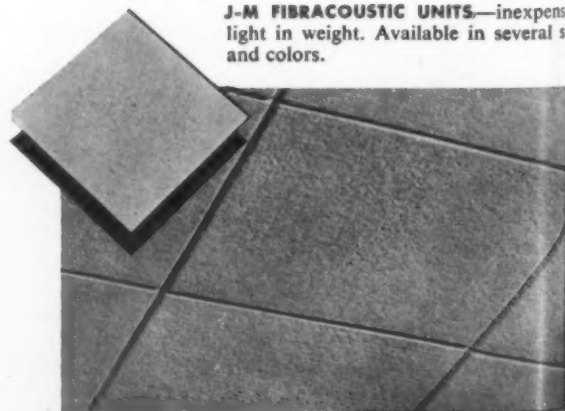
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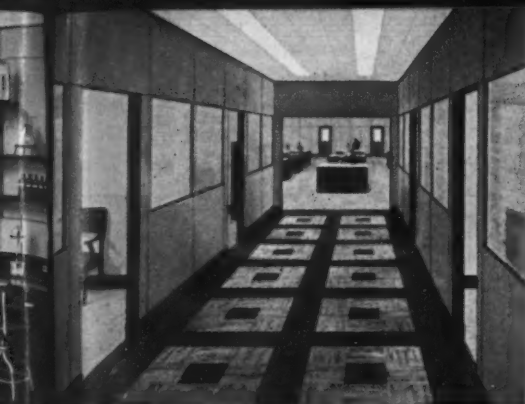


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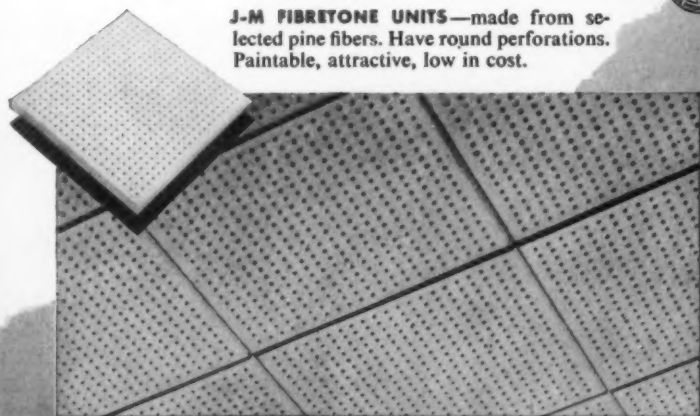
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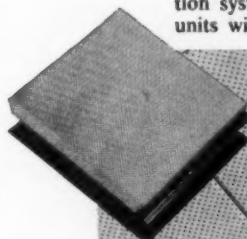
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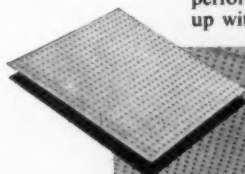
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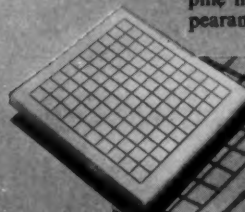
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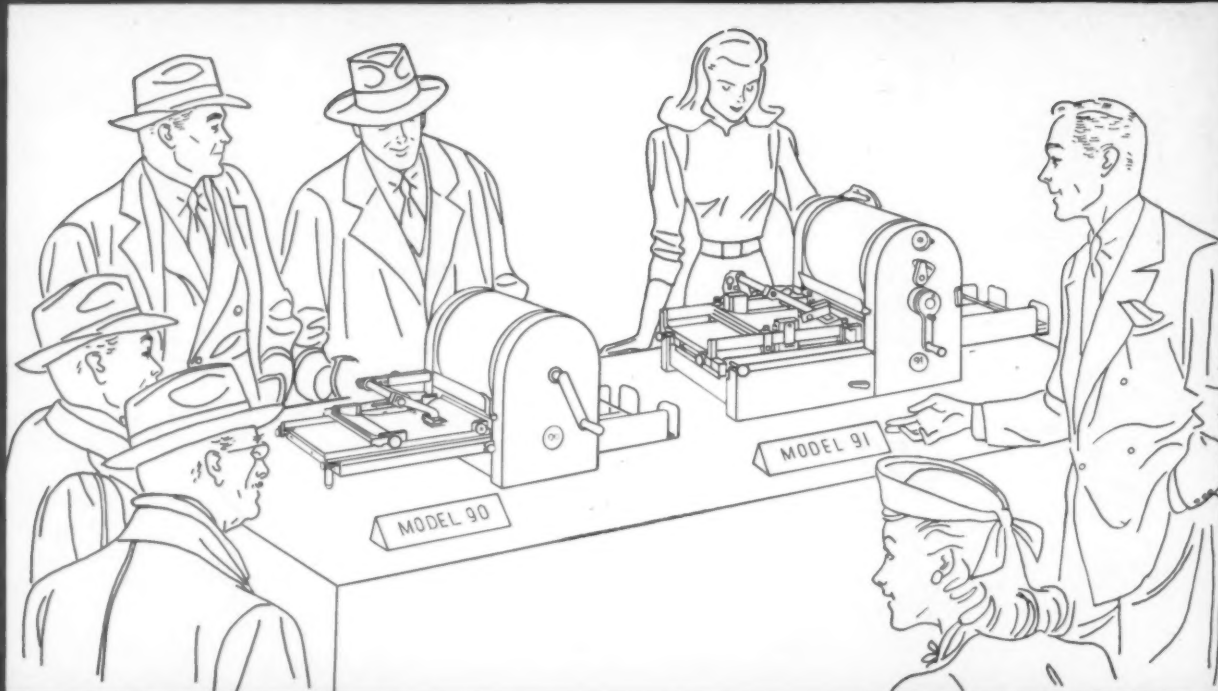


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LOOKING FORWARD

Donald DuShane

DONALD DuSHANE, the white-plumed knight of public education and sturdy champion of more equal educational opportunity for children and better economic, professional and social conditions for teachers, died suddenly in Washington, D. C., on March 11 at the age of 61. He had been since 1941 executive secretary of the National Commission for the Defense of Democracy Through Education, a division of the National Education Association.

His entire professional life, spanning forty-one years, since graduation from Hanover College in 1906, was devoted unselfishly to the improvement of democracy through education. Beginning as teacher in the South Bend High School, he served successively as high school principal at Shelbyville, Illinois, and as superintendent in the Madison, Clinton and Columbus (Indiana) public schools until 1941. Never content merely to do the job for which he was paid, he early practiced the thesis that every educator owes much of his time and energy beyond his regular job to the advancement of democracy. Were this concept of fearless, dynamic and unselfish leadership and vision displayed by every member of the teaching profession, not only would public education today be much improved but adequacy of support would never be a serious problem.

Early in his career, Donald DuShane discovered that the first need for improvement of public schools was the development of better teachers. Improved teaching depended upon better education, more democratic working conditions within organization, freedom of learning and of teaching and improvement of the teachers' civic, economic and professional condition. He also believed that democratic assumptions were farcical unless there also existed equality of educational opportunity for all children.

For Donald DuShane, to believe was to act. If an idea was right in principle, he never questioned possible personal disutilities that might result from its active promulgation. Personal popularity or what "the boys thought" never bothered him. There wasn't an inch of compromise in his character. This fact frequently annoyed colleagues and board members more accus-

tomed to following the easier way of perpetual compromise. Loyalty to principle, regardless of personal consequences, burned in Donald DuShane with a white heat.

Having decided that teaching could not be improved without protection for teachers in their civil rights and against reprisals by political or pressure groups, Donald DuShane threw himself wholeheartedly into the fight for teacher tenure. He became chairman of the N.E.A. tenure committee in 1934 and did so outstanding a job that the teachers elected him president of the National Education Association in 1940. He was primarily responsible for teacher tenure in Indiana and influenced its acceptance in many other states.

Having watched the attempts of special interest groups to whittle down educational opportunity during the depression, he became convinced that three things were necessary: better understanding by the people of the social value of education through constant interpretation, cooperation of the public schools with pressure groups through education and the need for bringing pitiless and continued publicity to bear upon all situations in which politics or reaction of any type interfered with the opportunity of the children or the freedom of teaching.

As a result of his persuasions, the National Commission for the Defense of Democracy Through Education was organized at the Boston summer meeting of 1941. The new commission unanimously elected him executive secretary. He took over this new job with the same intensity and singleness of purpose displayed in his earlier efforts for the improvement of public education. Neither threats nor pressures prevailed against him. He held only one theory of operation: if a condition was wrong, it must at once be corrected through sensible educational methods which consisted of continuing public presentation of facts, a strong drive to create a supporting public opinion and to produce civic action in the matter.

Whenever teachers or superintendents appealed to the N.E.A. for help in maintaining the integrity of public education, he responded quickly. His fearlessness and bulldog persistence inspired others with confidence. As a result, many teachers were saved from unjust dismissal

and organizational reprisals. Unworthy superintendents were held to an accounting. Probably the most outstanding of many achievements was the commission inquiry which resulted in the dismissal of Supt. William Johnson from the Chicago public schools and the current civic attempt to separate public education from the Cook County political machine.

At Atlantic City he discussed plans to maintain the principle and fact of undivided school support and the nonsectarian character of the public schools, despite strong authoritarian religious pressures. His untimely death is a great loss to public education and to the cause of democracy.

Admissions Taxes

SPONSORS of the movement to have federal amusement taxes removed from all school athletic contests, theatrical performances and other revenue producing activities might do well to study the background of this federal policy before spending time and money fruitlessly.

When the federal government decided to collect the admissions taxes on big-time university football back in the 30's, the institutions involved objected violently and their best institutional legal talent was used to plead the cause of exemptions. Despite all of this brilliant legal effort, the test case of *Allen, Collector of Internal Revenue, vs. the Regents of the University System of Georgia* reached the Supreme Court and was decided in favor of the federal government during the October term, 1937.

Mr. Justice Roberts rendered the majority decision and his argument, in part, follows:

"Question 'a' has been resolved as being in fact a question as to whether 'by electing to support a governmental activity through the conduct of a business comparable in all essentials to those usually conducted by private owners, a state may withdraw the business from the field of federal taxation.' . . .

"The important fact is that the state, in order to raise funds for public purposes, has embarked in a business having the incidents of similar enterprises usually prosecuted for private gain. If it be conceded that the education of its prospective citizens is an essential government function of Georgia, as necessary to the preservation of the state as is the maintenance of its executive, legislative and judicial branches, it does not follow that if the state elects to provide the funds for any of these purposes by conducting a business, the application of the avails in aid of necessary governmental functions withdraws the business from the field of general taxation.

"... however essential a system of public education to the existence of the state, the conduct of exhibitions for admissions paid by the public is not such a function of state government as to be free from the burden of a nondiscriminatory tax laid on all admission to public exhibitions for which an admission fee is charged."

Careful reading of the arguments submitted in this

case and of the conclusions of the United States Supreme Court indicates no reason why the Congress should now enact legislation exempting educational revenue-producing enterprises from federal taxation when they enter the business field through commercial amusements.

Frank A. Jensen

ILLINOIS lost one of its outstanding educators and The NATION'S SCHOOLS one of its most loyal staff members in the sudden and unexpected death of Dr. Frank A. Jensen on March 31. He was just completing his twelfth year as executive of the LaSalle-Peru Township secondary schools and his forty-first as superintendent.

Frank A. Jensen was born Feb. 16, 1879, and was graduated from high school at Pentwater, Michigan, in 1898. He volunteered immediately for service in the Spanish-American War and spent two years in the army, chiefly at Tampa, Florida. After two years as a rural school teacher he entered Michigan State Normal College in 1902 and was graduated four years later. He completed the doctorate at the University of Michigan in 1928.

After superintendencies at Kalkaska, Hart and Benton Harbor, Michigan, in 1923 he went to Rockford, Illinois, which had a reputation for good schools but short terms for superintendents. In 1935 he accepted the superintendency of the LaSalle-Peru Township High School and Junior College, remaining there until his death.

Dr. Jensen believed strongly that public education must be dynamic to improve our democratic living. Always receptive to new ideas, creative in his own right and single-minded in his devotion to the improvement of public education, he foresaw the need for the extension of secondary education at the community level through the fourteenth year. He was behind every movement for the improvement of the total state educational program and particularly for the separation of the state education authority from partisan politics.

In his opinion the success of any school system depended upon the quality of teaching. Most of his time was devoted to the selection of capable teachers and the creation of organizational conditions under which they might work to best advantage. Democratic by nature, he was constantly improving procedures whereby administration might become more truly an agency for the improvement of teaching.

His outside interests were in the field of textbooks, teachers' salary schedules, improvement in the superintendency and educational journalism. He became a member of The NATION'S SCHOOLS editorial staff shortly after its inception and for the last fifteen years has served on the editorial board. Good teaching was his passion and public education, his religion.

The Editor

Education Is a State Function

ARTHUR B. MOEHLMAN

IN EXPRESSING the official opposition of the Roman Catholic Hierarchy to the proposed Austin-Mahoney antiracial and religious discrimination bill affecting New York's public institutions of advanced learning, Coadjutor Archbishop J. Francis A. McIntyre at a communion breakfast on March 2 at the Hotel Pennsylvania made a declaration of belief by stating that:

"The bill states that education is the function of the state. Education is not the function of the state. Education is a function of the parent. If the statement that education is a function of the state is written into the law, it will permit future encroachments on the parental function of education. That is what we mean by the infiltration of Communistic ideas. The bill is framed after a Communistic pattern which would be detrimental to future generations."

After the red herring word "Communistic" has been eliminated, obviously used to create an emotional set on the part of his audience, the substance of this statement represents beliefs at great variance with American legal theory and practice that have progressively evolved since early Colonial days.

The archbishop's principal thesis is that "education is a function of the parent." Since the theory and practice of American democracy are based on the belief that *all* powers reside inherently in the people and are only specifically delegated to the government, the archbishop's statement is partially correct, although he ignores the historical development of this principle.

Delegation to State

Like so many other popular powers, the education function has been progressively delegated by the parent to the state. Since the first legal recognition of the state control over education as expressed in the Massachusetts Bay Colony acts of 1642 and 1647, the delegation of

power over education to the states has been greatly extended until today it is questionable whether any court in the land would hold that education is not a true state function.

The delegation of power over education by parents to the state was first made by granting to the several state legislatures through constitutional provisions the authority to establish and maintain general systems of public education to serve the needs of our democracy. Every state has progressively made such provision and the legislative power to provide and to maintain the schools has been upheld in every state supreme court, and also on numerous occasions by the United States Supreme Court.

Public schools are considered essential to the preservation and improvement of our democratic form of government. They have gradually taken on the fundamental characteristics of the American state, becoming non-partisan, impartial, classless and non-sectarian. They have formed a means not only of furnishing each individual with an opportunity for education in accord with inborn capacity but also of providing a central, unifying cultural core for the transmission of the common and essential principles of American life. Thus, the American public school has become the chief instrument for American democracy and now ministers to 90 per cent of the total school population.

The extension of its program and its general enlargement since 1840 have been progressively approved by the people until the best description of it now would probably be as follows: education is a function of the individual states through specific delegation of powers by the parents to the state through constitutional mandate, legislative statutory enactments, review by the courts and continued approval by the parents.

The democratic pattern of living provides for conformity in certain areas with a wide opportunity for dissent within the broader perimeter

of our total culture. Dissent is the essence of democracy.

Thus, while the people of the several states provide cooperatively for a system of public schools open to the children of all the people, the law also makes it possible for parents who desire educations for their children different from those offered by the people's schools to dissent and to maintain their own schools. The right to protest and to support that protest at their own expense appears to be attractive to many parents.

The nonpublic school is a concrete expression of this inherent democratic right of protest. These protests may be economic, sectarian or social in nature. The majority of nonpublic school attendance is in sectarian controlled and operated elementary, secondary and advanced schools.

Must Maintain Independence

Their fundamental protest is against the secular character of the public schools made necessary by the secular nature of our democratic state, wisely established by the first amendment of our Bill of Rights which separated ecclesiastical from secular authority. Because of this fact the church schools can never become partners of the American state but, like all other nonpublic schools, must maintain their independent protest character to justify themselves.

This right of minorities to protest against the people's schools as operated through the authority of the state should be perpetually maintained as a basic right. Education should never be permitted to become a complete state monopoly at either child or adult level.

Within these sensible limits education in the United States is a function of the several states and a close partnership between the people and the state.

Chiefly as a result of the opposition of the New York State Catholic Welfare Board and Archbishop McIntyre's opposition the Fair Education Practices Bill, or the Austin-Mahoney Bill, died in committee.



More attention to the individual child brought many benefits.

Effects of Smaller Classes

Experiment in reducing class size causes improvement in

Achievement

Attendance

Pupil Behavior

Teacher Morale

SEVERAL months prior to the spring election to raise the local school tax levy in 1944, Frank J. Manley, assistant superintendent of the public schools of Flint, Mich., and director of the Mott Foundation, suggested that one of the 28 elementary schools be selected as a demonstration center to show both the public and the school staff what improvements could be effected if classes were considerably reduced in size and more attention was directed to the individual needs of the children.

Accordingly, the Mott Foundation agreed to provide funds for the salaries of two additional teachers, an increase from a half time to a full time school clerk and whatever special supplies, books or equipment the teachers deemed necessary. The addition of two teachers to the staff reduced the pupil-teacher ratio from 37 to 30.

A plan of action was made cooperatively by the teachers of Martin

School (the school chosen), by the principal and by the supervisory staff. Space does not permit a description of the details of the plan except to state that the Martin staff carefully outlined a program of testing, of reading improvement, better growth in social and emotional areas, increased facilities for physical and dental health, reduction in the number of maladjusted children and a more thorough follow-up of school attendance on the part of pupils.

LAWRENCE D. LUNDBERG

Assistant Superintendent, Flint Public Schools, Flint, Mich.

All phases of this plan have not yet been fully realized but sufficient knowledge about each has been brought to light to point consistently to a general improvement in school work, professional morale and in pupil-teacher and teacher-parent relationships. A general summary of results and observations to date is outlined as follows.

1. **Improvement in Educational Achievement.** The original plan of testing included the fields of reading, arithmetic, spelling and penmanship. The present description will be limited to a few high spots of the reading phase.

The demonstration was not in the nature of a controlled experiment and the effects of smaller classes and better school facilities could only be compared to the past record of Martin School under conditions similar to those of the other elementary schools in the city.

In general school achievement as measured by the Stanford Achieve-

ment Tests administered throughout the city to 4B and 6A grades, the Martin School's rank among the 28 elementary schools had averaged twenty-fourth during the five years (1939 to 1944) prior to the demonstration. During the first year of the demonstration the rank of Martin School rose to sixteenth place and the following year to fifteenth. On one occasion, the 6A grade at Martin jumped to sixth place and on another to a tie for first place.

When the growth of identical pupils from the 4B to the 6A grade was measured, it was found that the group, a year after the beginning of the demonstration, attained an average gain equivalent to twenty-eight months compared to twenty-three months experienced by the class of the previous year. This gain represents an improvement equal to an additional semester.

What Results Showed

At the close of the first year (March 1945) an analysis of the results of the Ingraham-Clark Reading Tests administered to all pupils from the 1A through the 6A grades (March 1944 and March 1945) showed an average progress equivalent to fourteen months within an actual interval of nine school months.

This growth was considerably in excess of measured results obtained previously at Martin School.

In March 1946 similar tests showed that the same grades averaged the equivalent of 5.3 months above the national norms of the tests. An interesting point in this testing was the relatively better showing of the

primary grade children, most of whom were in the Martin School for a proportionately larger part of their schooling during the time of the demonstration than were the fifth and sixth graders.

The average gain in reading levels of identical children from the third and fourth grades in February 1944 to the fifth and sixth grades in March 1946 was twenty-two months. The actual time period in school months was twenty-one. The gain was thus normal but significantly larger than that previously found at Martin School.

Beginning Reading Studied

Special attention was centered on the problem of beginning reading and its relationship to readiness and kindergarten-first grade articulation.

Careful analysis of mental, social, emotional, family and health factors of each kindergarten child, together with results of a reading readiness test given later in the first grade, was made by the principal and the kindergarten and first grade teachers working together with the primary grade supervisor. First grade children were then classified on the basis of these factors so that individual and group needs could better be met.



Grades were higher and behavior improved.



Statistics were carefully kept and studied during the experiment.



Effects of smaller classes were compared with past records.

Of the two beginning first grade groups, the brighter developed reading skills as rapidly as the superior groups in other city schools and more rapidly than did the normal groups. The slower group followed a slower pace, spending a longer time in pre-reading experiences, oral language, speech correction and physical and emotional adjustments than do normal first graders. During the first two years the individuals of this group were making adjustments of all kinds beyond the expectations of the teacher. One of the important factors in these adjustments seemed to be the careful explanation of the teacher's plans given to the parents.

The brighter group has continued to be an outstanding one for nearly three years and gives every indication of increasing levels of development not only in the school subject but in personal and emotional adjustments.

2. Improvement in Attendance. The percentage of attendance at Martin School for the two year period from 1942 to 1944 was 87.4.

During the two following years 1944-46 the average percentage rose to 90.0. This increase of 2.6 per cent took place when the overall city elementary grade attendance rose only 1.5 per cent. Although this improvement was not large, it does mean that the additional efforts of the teachers resulted in an average of 14 additional pupils in school attendance each day at Martin School. This was also a result of the extended program of health and dental inspections and correction of defects carried out by the Mott Children's Clinic and the family physician.

The city attendance department also rendered more than the prorated service to Martin School.

3. Behavior of Children and Morale of Teachers. Any evaluation of the change in the behavior of the children at Martin School over this period would be relatively subjective but a definite program of study by the teachers in the field of social and personal needs of children and in child development and a close association with visiting teachers, the

child guidance staff and the Mott Children's Health Clinic has brought a marked change in teacher attitudes toward the emotionally maladjusted child whose home atmosphere is inadequate.

First, the teachers selected or nominated the children whom they considered problems and who stood in need of special help. Haggerty-Olson-Wickman Behavior Rating Schedules were then used as a departure for careful individual study and diagnosis of these children. Referrals were made to the child guidance center when such referrals were necessary. The director of the center took part in discussions and staff conferences with the teachers relative to these more serious cases. Others were followed through by the Martin staff.

This program not only showed definite results as far as the children's behavior was concerned but stimulated a professional concern in the teachers for the individual child as a person. This represented a highly effective type of professional training in service.

Better Teaching Done

One of the more striking observations in the demonstration was the eagerness of the teachers to show what they could do under favorable teaching conditions. A greater potential of professional competence was demonstrated with the smaller classes by all the teachers at Martin than had ever been done before at this school. This conclusion has been drawn by the principal, the teachers themselves and members of the supervisory and administrative staffs who have made consistent observations. This conclusion was made in the face of a somewhat larger teacher turnover since February 1944 than was anticipated.

The experiment is, of course, not a controlled one, but we in Flint feel that the evidence that is still accumulating has demonstrated to teachers and parents alike that the elementary school will do a better job with smaller classes and that smaller classes must be the rule if the important social, emotional, academic and physical needs of school children are to be met adequately.

The Continuous Textbook Inventory

COOPERATION of principals, supervisors and teachers may be sought in taking a textbook inventory of almost any school system and, once that inventory is obtained, it can be kept up to date by an annual check. No one person or small group needs attempt the task; it is a job for the entire staff and invites even pupil participation.

First, an inventory sheet which can be easily duplicated in quantities should be designed for the use of each person participating. The sheet should carry the name of the system at the top with the name of the school, the teacher, the department, the number of the room and grade and the date below.

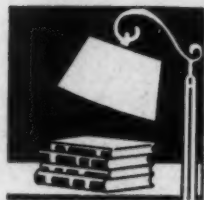
The Inventory Sheet

In the elementary school it is probably best to have the inventory taken by classrooms; in the secondary school it may be done best by departments with department heads collecting and arranging the information. The inventory sheet should be marked off in columns as follows: title of book, author, publisher, copyright date, number in good condition, number in fair condition, number needing repair, number to be discarded, total number usable, number needed for next year and total number to be ordered.

One or more of these inventory sheets, together with directions for using them, should be supplied each teacher. I have found it practical to number each column on the inventory sheet and to write a short paragraph of instructions for the setting down of information in that column. Sheets and directions can be distributed by the principal at a meeting with teachers. Questions can be asked and answered at that time.

In the elementary school each classroom teacher should list her books under subject headings in a given order as explained on the direction sheet. This will facilitate the later tabulation of information in the

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principal's office and the central office.

The inventory sheets should be filled out early in the spring each year and should be destroyed after book orders have been determined and after the information on the sheets has been recorded in a card catalog.

The card catalog system is the continuous and permanent part of the textbook inventory. There should be a master file of cards arranged alphabetically by titles, each carrying in addition to the title the author's name, the company's name, the copyright date, the subject and the schools, enough space being allowed for inserting the names of schools where the book is in use. It is not necessary to give quantities or other specific information on this card since it is used largely to locate cards in the other files.

Other Files Desirable, Too

It is also desirable to have a subject file, a company file and a school file. If it is impossible to set up the entire inventory system in one process, however, one file might be started each year, beginning with the subject card file, which can be used for the master file if desired. I myself like the title card system for the master file because it facilitates locating information concerning any book. It also lends itself easily to cross reference.

The subject card, as we are using it in Haverhill, like all others in our catalog, measures 3 by 5 inches. The

subject is given at the top; below appear the title of the book, the names of the author and publisher and the copyright date. If any book has more than one copyright date, separate cards are used to indicate this difference. Under each subject, the cards are arranged alphabetically according to titles. The subject card is also marked off into columns headed: school, grade, number purchased, number good, number fair, total usable, number rebound, number discarded and the date. For each entry of school and grade, several horizontal spaces should be left for as many annual entries as are desired.

Values of Textbook Inventory

The textbook inventory, while it does not compare with textbook selection as a valuable participatory and democratic process, is worthwhile in many ways.

1. It gives the administrator the information he needs in planning his textbook budget.

2. It guarantees a better textbook situation for pupils by eliminating waste and inefficiency and thereby providing more and better textbooks.

3. It keeps the teacher conscious of the textbook as an educational device and focuses attention on the care and condition of books.

4. It tends to bring about added use of effective textbooks and a discarding of those which are outmoded.

5. It is effective in revealing deficiencies and needs as well as unfairness in textbook distribution.

6. It makes possible the arousing of public interest by providing information as to textbook needs, number of usable textbooks per pupil, average age of textbooks, number of years they last, number of different texts in any subject.

There should be no secrecy about the central textbook inventory. Each principal, supervisor and teacher has the right to know what textbooks are available and where they are located.

Separation of Church and State Must Be Maintained

BOYD H. BODE

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AN OMINOUS note is heard today in the steadily mounting pressure to obtain public approval and support for the teaching of sectarian religion. Preliminary skirmishes, such as the demand for Bible reading in the public schools and "released time" for outside instruction in religion, have already been under way for some time.

Certain initial successes in obtaining direct financial aid have already been scored: free bus service, free textbooks and school lunches. All this, however, is trivial in comparison with the larger purpose of having private schools recognized as of equal rank with public schools and entitled to a proportionate share of the public funds.

Strategy in S. 2499

The latest strategy in this campaign is to operate through federal legislation. The Senate bill S. 2499, which was introduced last June under the sponsorship of Senators Murray, Morse and Pepper, is a case in point. Its announced purpose is to promote equality of educational opportunity but it provides that this aid is to be extended to all "non-profit, tax exempt schools" which measure up to appropriate conventional standards and that, if the Constitution or the statutory regulations of any given state should forbid the appropriation of public money to either denominational or private secular schools, the federal authority in Washington is to pay out the money directly to the schools concerned, thus overriding any state and community feelings on the matter.

This double barreled attack upon the separation of Church and State and the tradition of community con-

trol over education, two of the basic features of our democracy, is not to be taken lightly.

The pressure group behind this kind of legislation is too obvious to be mistaken. Our private secular schools, although equal beneficiaries of the program, have made no noticeable efforts to obtain public funds. The Protestant parochial schools, whose owners might be conceived as forming a pressure group for such an end, have a combined enrollment of less than 276,000 and this enrollment is divided among 31 different Protestant bodies.¹ They have shown no disposition to combine for political ends nor is there any likelihood that they will.

When one considers, by contrast, that there were 2,000,000 Catholic pupils in Roman Catholic parochial schools and that the Catholic hierarchy has pressed long and hard for public financial support, it becomes obvious that for all practical purposes S. 2499 could be called a measure to promote Catholic education by means of federal aid.

Expenses Increasing

This, at first thought, might not seem anything to be alarmed about. Nothing is more familiar in our tradition than the attempt of private interests to gain access to the federal money bag. It is becoming increasingly expensive for parochial education to compete with the widening course of public education. Hence, the clamor for public support.

However, when we realize that the

¹Moehlman, C. H.: *School and Church: The American Way*, New York, Harper and Brothers, 1944, pp. 68-79. This small volume is an important contribution to the topic under discussion.

charges that our public schools have no morality and are cesspools of materialism and selfishness spring largely from a narrow religious point of view and that there is an expressed conviction from this source that the spirit and general direction which have become operative in our public education are inferior to those of parochial education, the ominous note becomes clear: this maneuver for a sharing of public funds is a bid for a partnership with the State in educating its citizens.

Meaning Is Clear

It means giving strength equal to that given our free public school system to a program of indoctrination for a fixed way of life in which the freedoms of conscience, mind and speech are rigidly confined within the areas of papal pronouncements. The fact that such a proposal can sound plausible means that we have pretty much lost track of what our public education means in the development of democracy.

The charge is made that "religion" is not taught in the public schools. It is high time that educators take thought. We need to inquire more closely into what is meant by the teaching of "religion" and whether "religion," taught as a theological and authoritarian framework, is compatible with the democratic ideal. Sectarian religion was excluded from the schools on the same basis that religious authority was excluded from the State. Educational leaders must accept the responsibility for reopening the whole question of this separation to reach its deeper meaning.

The separation of Church and State did not become an issue for

democracy until the early settlers of America found themselves faced with the dilemma of maintaining a common government over a diversity of creeds and denominations. Many of our early settlements were theocratic organizations that maintained the principle of freedom of conscience only to justify their own religious convictions. However, it came to be increasingly clear to them that the only safety for all of them lay in the principle of separation. The problem was solved on a practical rather than a theoretical basis. How was this separation to be accomplished? What general authority over their lives was the government to be given and how was it to be kept from interfering with the authority of religious groups?

This was achieved by setting up a clear distinction between the domains of the secular and the spiritual. It was agreed that the separate communities would cooperate in maintaining roads, policing, health, coinage, foreign relations, ordinary decency, but, with respect to beliefs, the government was to maintain an official neutrality.

Religious Teaching Excluded

When public education was set up as the responsibility of the State, this distinction was applied to it. This was fairly easy because public education at first was small in quantity and narrow in range (experts tell us that even as late as the 1880's we were still, in terms of per capita education, a nation of third graders), and its immediate concern was with the acquisition of information and skills. As a means of teaching democracy, schools could confine themselves to a study of democratic political forms, to creating an appreciation of our national history and to training pupils in general habits of thought and attitude which would help them fit into general community life. The development of specifically religious aspects of character and outlook on life was left to the home and the church.

The fact that this solution to the conflict between creeds was an expedient becomes apparent when we see that the separation of secular from spiritual matters is becoming increasingly difficult to maintain. In government the control of the state has grown to embrace such problems as pacifism, polygamy, flag saluting,

Communism, unemployment and equalization of educational opportunity, and we are constantly faced with the dilemma that the government cannot solve these problems without broadening the theoretical base upon which it operates.

It must now decide upon matters which require for decision an overall, consistent attitude such as in the past has been identified with religious organizations. It must become conscious of itself as having an outlook of its own which is basically religious and which represents a distinctive and competing way of life.

In education the same overlapping of secular and spiritual has occurred. When, in educational programs, we encounter such problems as evolution, the historical treatment of the Reformation (or the Civil War), the range of scientific method and the pronouncements of modern psychology regarding the nature of the mind or soul, we are faced with the fact that the honest presentation of this material time and again results in undermining the dogmas and metaphysical organizations of our various sects. It is these dogmas, however, in their various related forms which hitherto have given authority for decision in matters pertaining to morals and human relations. As a result of the attempt to separate the secular and spiritual into watertight compartments, we have placed most of our practical and human concerns outside the frameworks of traditional religious organizations and we have left them there without providing a democratic framework of belief to organize them and give them meaning.

Separation Must Be Maintained

This absence of an alternative framework is the basis for the charges made against our schools that they are irreligious and without morality. And we are faced with the fact that unless we can articulate clearly the positive ideal that was implied in the separation of Church and State, we shall have no ammunition against a militant church organization proclaiming the necessity for a "spiritual" way of life. We must see that "separation" is actually just a euphemism for the supremacy of the democratic ideal.

Democracy is a way of life or it is nothing at all. It is perhaps just as well that this was not clearly seen

at the outset. If it had been, democracy might never have got under way. The concept of freedom of conscience was still pretty much the concept of the freedom of a variety of sects to impose their particular order upon the individual conscience and the freedom of an individual to move away from a given community if he could not fit himself into the variety of belief it represented.

Gradually, as the power of creeds broke down and better means of communication brought communities closer together, as scientific and industrial achievements increased the complexity of living and made individuals more and more dependent on one another, the ideal emerged that through education the sympathies of individuals could be enlarged until all men could join hands in the creation of a community life rich and varied enough to allow for the maximum development of each.

No Supernatural Sanctions Needed

It was the belief that when individuals are freed of fixed patterns of behavior and are set in a relationship of sympathy to one another the resulting cultivation of common interests will then generate moral patterns for enhancing the dignity and vitality of living as naturally and empirically as cellophane comes out of our scientific procedures. We need no supernatural sources or sanctions for morality. Our common humanity, when individuals are released from fears and ignorance, provides a sanction so powerful that all authoritarian systems will give way before it.

Actually, our public schools have always served this ideal. The glory of "the little red schoolhouse" was its service in transforming members of our heterogeneous population into Americans, not by sticking to a narrow concept of "usefulness" but by fostering a distinctive human ideal. And it is the heavy responsibility of educators at the present time to make this distinctive ideal of democracy explicit in their programs, their philosophies and their actions.

We must move forward toward the full expression of the meaning of democracy or backward to a barbaric past. The battle has begun. We must see the enactment of such a bill as S. 2499 for what it would be—a disaster of the first magnitude.

S. 2499

*would open the door to
educational cooperation*

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THE criterion of any proposed educational legislation should be its probable long range effect on education. There is little doubt but that S. 2499, if passed by Congress and if implemented by the necessary appropriations, would have the immediate effect of making more funds available for the improvement of public schools, particularly in certain areas where the people are now over-taxing themselves in an effort to provide even substandard schools.

Two factors which, although of the greatest importance, seem to have received little consideration, even from the opponents of S. 2499, are the effect of the proposed subsidy upon the existing nonpublic schools, which enroll approximately 10 per cent of the children attending elementary and high schools, and upon the relationships between the public and the nonpublic schools.

Catholic School Enrollment Large

Of the children attending nonpublic schools, 2,400,000 are in Catholic schools, most of which are parochially supported by congregations whose members endure this burden in addition to payment of school taxes to support the public school system. A high proportion of these parochial schools are economically marginal, i.e. maximum effort on the part of the congregation is required to pay minimum operating expenses, even though the salaries of the Sisters who teach in them seldom exceed \$400 a year. Most of the Catholic parishes which do not maintain at least elementary schools fail to do so only because of economic impossibility, and a serious increase in tax burden on the people might make it necessary to close many of the parochial

schools which are now in existence.

This outcome, however desirable it may be to certain zealots for the public school, would be a blow to public school efficiency. It would throw into public school systems thousands of children for whom neither buildings nor trained teachers are or can presently be available and would, at the same time, remove the healthful stimulus now provided by the friendly competition for excellence between the two school systems.

There has been much criticism of S. 2499 because it requires that non-instructional services shall be available to children attending nonprofit, tax exempt schools. This requirement might represent federal interference with the state education function. It does seem somewhat in advance of the times, although it is in accordance with the strong trend in both public opinion and educational practice which is indicated by increasing statutory decisions, all the way from the Louisiana free textbook decision of 1930 to the New Jersey bus transportation decision of several months ago.

The provision with regard to non-instructional services is at present highly controversial, although, if the trend just referred to should continue, there ought to be less and less controversy in future over service-to-the-pupil types of aid as opposed to the subsidization of the nonpublic schools' instructional program.

However, the bill would leave it pretty much to the individual state to determine which schools should be considered public. It would be entirely possible under the bill for a state legislature, unless prevented by state constitutional prohibitions,

to include in the public education system many of the schools now privately supported, even parochial schools. So long as the individual state does not discriminate against such a school in its own appropriations, the federal funds would flow equally to that parochial school.

This is the treatment to which most of the supporters of parochial schools, particularly the members of the Catholic Church, have believed the nonpublic schools to be entitled by right. For more than a decade, however, Catholic demands for state support of parochial schools have practically ceased, as informed Catholics came to the realization of two facts: (1) that there is almost no probability of Catholic schools receiving financial aid from the states, but that many free pupil services will be provided if the school aid matter is not agitated and (2) that the instructional control necessarily imposed upon any school which accepts state funds would destroy the essential Catholic character of the school and leave little more than a public school with a half-hearted, out-of-school-hours religious program.

May Reverse Their Position

With higher federal taxes (and, in many cases, higher state taxes, too) reducing the ability of the Catholic population to support its parochial schools and with at the same time a great increase in the money available for education within the states, many Catholic leaders would be likely to abandon their previous position that "parochial schools are entitled to public support but would be foolish to accept it" and actively demand a share in the state and federal appropriations.

The divisive effect of such a situation is obvious. It would be only a matter of days before we would see a revival of the "Godless public school vs. un-American parochial school" type of debate, happily now dormant, and educational cooperation and intergroup understanding in this country would suffer a setback from which it would take decades to recover.

It took long enough to cure the bigotry of the 1890's. Many of us have terrifying memories of the hooded hate groups of the 1920's. Dare we risk a revival of such hatred in these times?

THE bill S. 2499 is the direct successor of various bills that have been considered in congressional committees for the equalization of educational opportunity throughout the United States by the subsidization of education within the several states in which limited resources have meant limited facilities, inadequate salaries, discrimination against racial groups.

It is realized increasingly that we are one country and that the nation as a whole pays the cost of low standards anywhere. Southerners make their way into northern cities where their lower standards of education exact a price on their adopted communities.

Disease, illiteracy and prejudice travel widely in a nation of migratory people, such as ours, and carry with them many social problems. Democracy rests on education and is imperiled by our present inequality of educational privilege.

Previous Bills Tabled or Defeated

In each previously proposed equalization bill, representatives of the National Catholic Welfare Council have appeared to oppose the bill, except on the council's terms, *i.e.* the appropriations be made available alike to public and nonpublic, including parochial, schools. Because of this suggested basis, as well as the opposition of taxpayer groups, the bills have been tabled or defeated in Congress.

On the state level, those who desire religion taught integrally with public education have used every pretext as an opening wedge to advance their views. There has been insistent pressure for the use of public funds for textbooks, transportation and even physical plants and teaching staffs for the parochial schools. Reversing its policy of relying on parochial schools to teach religion, the Catholic Church has joined forces with some Protestant churches and churchmen in the clamor for the use of public school authority over the child for the so-called "released time" program. With this in different degree have also come demands, often successful, for the use of school premises and funds for such purpose.

Opponents of the released time program as well as opponents of the use of public funds from state or city budgets for textbooks, teachers

S. 2499

*would defeat the purposes
of our free school system*

EDWIN WILSON

Editor, *The Humanist*

and transportation have objected that released time for religious education is a violation of the principle of the separation of Church and State and that it injects divisive sectarian antagonisms into the "melting pot" of our pluralistic democracy with accompanying discriminatory religious identification. They have also held that the time so used is needed for the goals of democratic secular education and that pupils who do not take the religious instruction are provided an education inferior to that which they would otherwise have.

S. 2499 catches up many of the demands on the state level and incorporates them with the need for federal subsidy in one omnibus bill that should be regarded as the ultimate drive of sectarianism on the principle of separation of Church and State. Sums appropriated under the bill run into many millions of dollars, ultimately amounting to more than \$1,000,000,000 a year.

The former proposal of trusteeships to administer federal funds in those states specifically prohibiting the use of state funds for sectarian institutions does not appear overtly, but the bill does have a provision for the "charters" of nonpublic educational institutions, which amounts to the same thing.

By using the phrase "nonpublic, tax exempt schools" in the authorization clauses the door is opened to the use of the taxpayer's dollar to provide all of the proposed services to sectarian religious institutions, including parochial schools. Note that here the opening wedge is a previous privilege granted by the State to Church organizations—the exemption of their property from taxation.

The professed aim of the bill is to make educational opportunities equally available to all American children regardless of race, color or creed—in itself a noble goal. It is my contention here that the bill as now designed is sure to defeat that aim; that it will discriminate against minority sects, against children of parents who make no religious profession and against members of denominations which desire on principle to teach religion on their own time, premises and funds.

Furthermore, I believe the bill would be unconstitutional and a violation of the stipulation that Congress shall make no law concerning an institution of religion. The bill, as such, is a violation of the principle of separation of Church and State.

Other Unfavorable Effects

Moreover, it would encourage a competing system of publicly financed, state supported schools, lowering educational standards, encouraging wasteful competition, leading to the duplication of plant facilities or the pressure of taxpayers to force the children of minority groups to attend sectarian controlled nonpublic schools.

Arvid J. Burke in "Defensible Spending for Public Schools"¹ has pointed out that, although the use of state funds has been opposed on the grounds that it is a violation of separation of Church and State and is supported in some instances by taxpayer groups that erroneously think they see in the shifting of education to sectarian auspices a means

¹ "Defensible Spending for Public Schools," by Arvid J. Burke, director of studies, New York State Teachers Association, Columbia University Press, N. Y. 1943.

of lowering the cost of education, it is both against good democratic policy and against efficient financing.

1. *Public Policy.* "To grant state aid to institutions organized on state, national and international bases would give these institutions more centralized control over education than the citizens in any American state have yet assumed. Institutions involved in international politics and even controlled by citizens of a foreign nation could use their schools for propaganda purposes. Nations might even struggle for the control of international organizations in order to gain control over education in the democratic state. By controlling education, institutions and groups organized for ends contrary to democratic principles would be better able to indoctrinate behavior inimical to citizenship in the democratic state. Such indoctrination need not be overt; organizational and environmental factors might even be more effective."²

2. *Abandonment of the policy* of publicly financing only one school system in a community and only one school system in a neighborhood with the citizens taxing themselves to support as many school systems as there are religious denominations or other groups that want separate schools "will result in increased school costs. Instead of financing only one school system . . . the public will be paying for as many systems as there are denominations and other organized groups wanting separate schools."³

The result from the point of view of public school financing will be inefficiency and waste. Educational standards will be difficult to maintain under S. 2499 because the policy of direct democratic control over the nonpublic schools will be prevented by the measure, one of the terms of the demand for federal funds for nonpublic schools always being that the federal or state governments shall not control the details of curriculum or teaching.

Administrative Problems Created

Teachers and members of religious orders could turn over a portion of their salaries derived from public funds for other church activities. Public funds thus spent by private agencies would be impossible economically to administer. These are only some of the administrative problems which would increase educational costs and at the same time lower the quality of education. The public should think twice before it sluices public funds into private, sectarian channels, if for reason of economy alone.

Several other considerations should make the appearance of S. 2499 the final overt step which will arouse Americans, including not only free-

thinkers, Protestants and Jews, but also the considerable potential number of Catholics who have always appeared as anti-Clericalists whenever the political ambitions of their clergy have jeopardized their fraternal relations with those of other religions and have led their spiritual leaders away from the methods of Christ into the devices of Caesar.

The framework of tolerance in America, a land of many and diverse faiths, is the principle of separation of Church and State. This provides for equal religious liberty for all, the right of each to worship in his own way or not to worship. Under separation of Church and State, each church can advance its pretension to absolute truth under its own roof and press, without using the coercive power of the State to force its views on others.

Would Give a Nod to Intolerance

Behind the persistent efforts to inject sectarian instruction into public schools and obtain public funds for nonpublic religious institutions is the frank theory of the Church of Rome that the State should prefer "the true religion"—its religion. Where that church has had sufficient political influence, equality has not been granted to smaller churches. Mere numbers is no justification for violation of the principle of equality, and no value obtainable by such violations of the principle can compensate for the loss in tolerance and liberty of minorities that would ensue.

S. 2499 must be understood in its wider setting. Theologians are claiming that democracy rests on belief in God (defined, of course, by those who have the "true" belief) and that, therefore, the State should inculcate such belief as necessary to its own stability and order. I claim this to be a spurious and dangerous argument. It points not to democracy but to authoritarianism.

We would do well to follow in America the formula established for the national schools of France with the help of anti-Clerical Catholics: "There shall be no teaching of theological religion as such; but in programs of moral instruction which develop the sentiments of truth, goodness and beauty, which are no small part of the religious sentiment, we negate no theology but deepen all."

S. 2499 or similar bills should be

altered so that the funds are specifically appropriated only for public, tax supported institutions and specifically denied to nonpublic, sectarian religious institutions.

Be it noted importantly that under such a plan, our American schools would then be available equally to all children of whatever race, creed or color. Parents who wish their children to receive their schooling integrally with their religious instruction would still be able, if willing to pay the price, to have their separate schools. However, because the State should not encourage the inefficiency and divisiveness of such schools, I would advocate, first, a strict maintenance of educational standards as a condition of the privilege of separate schools and, second, the taxing of churches and church property of all kinds, if only by a very nominal tax, to remove the sectarian institutions from their tax free status and thus to establish a more nearly complete separation of Church and State. Those who believe in freedom should be willing to pay the price of freedom, even to the extent of paying a tax to the state.

Special Privilege Demanded

Finally, I hold that the onus of the present denial of equal educational opportunity rests clearly upon the National Catholic Welfare Council. It puts the stumbling block in the way of education for countless of "these little ones." It demands special privilege.

S. 2499 as now constituted is a discriminatory bill in which all who belong to minority sects or no sect and all who believe in separation of Church and State actually and practically would be treated unfairly. The result of S. 2499 would be an end to the framework of tolerance and it would lead to endless bickering and hostility where relative peace now reigns among the various religions.

If Americans want equalization of educational opportunities and if they do not want their public money used to pay priests, nuns and clergymen, to build institutions for advancing particular denominational creeds, they should voice their demand now that S. 2499 be altered to exclude all religious groups from its benefits and to specify that the funds it appropriates go only to public, tax supported institutions.

²*Ibid.*, pp. 207, 208.

³*Ibid.*, p. 208.



Universal military training is not something to be considered complacently by educators.

The Case *Against* U.M.T.

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COMPLACENCY on the part of educators in the face of social issues that challenge the foundations of our American way of life is scarcely fitting.

The proposal of the present administration to take over a year of the life of every male citizen for the purposes of military instruction and indoctrination is actually a proposal to change the American way of life. It is not merely an element in a plan of national defense.

There are two good reasons why educators should study the proposal for universal military training. In the first place, the proposal is being met with complacency except for those who find it to be a hindrance to economy plans. Certainly, any basic change in our national policy should be examined, discussed and debated in every community in the nation. Like any other change, it should "make its own way" by proving that the national welfare and security are dependent on it.

Second, educators have a responsibility for evaluating the educational program proposed by the General Staff in the light of past experience. The education of an American citi-

zen of these United States is a subject upon which the education profession must always be ready to speak authoritatively.

There is a new reason for hesitating to invoke universal peacetime conscription and training. Humanity is making a desperate attempt, and possibly a final attempt, to establish a working scheme for the control of war. This experiment with survival must not be jeopardized without much study and soul searching on the part of every citizen. The adoption of U.M.T. might well seal the doom of the disarmament movement and embroil the world in an armament race which could only end in suffering and ultimate disaster.

Is U.M.T. Probable?

A great deal of the complacency now being evidenced is due, no doubt, to the hope that a peacetime draft will never materialize. Actually, the campaign is well under way and only a counter campaign can defeat it. Here are some of the reasons for

expecting that Congress will pass the conscription bill:

1. The termination of the wartime draft before the termination of the national emergency. This fact tends to place upon peacetime conscription the approval previously accorded the wartime draft by confusing the issue of the need for a large armed force during the peacemaking period with the need for peacetime military training through conscription.

2. The latest plan for universal military training removes many of the objectionable features of former plans and is done up in a tasty capsule of pseudocivilian status for trainees.

3. The Reserve Officers Association and, still more important, the large veterans' organizations have come out for some form of U.M.T. The veterans represent a powerful influence in the defense field and even though many veterans are against U.M.T. their lobbies present a solid front in Washington in favor of such legislation.

4. The present "beating of the

drums" against real Communists and all others who depart from conservative forms of thinking. This program, while it has a certain basis of fact and reality in a world that has not made peace, is being lifted to the level of hysteria. Truth based upon judicial procedure is being replaced by name calling and demagoguery. One may wonder if there is not some strategy back of the program and if that strategy might not be related to the passage of a peacetime draft act. Certainly, the front page of any newspaper leaves the reader feeling the need for a national defense force.

5. The President of the United States has recommended U.M.T.

The fact that Generals Groves and Bradley have stated that there is no known defense against the atomic bomb; the obvious uselessness of archaic armed forces against atomic warfare, and the need for an emphasis on peaceful conciliation may not outweigh the campaign for U.M.T. Even the economy argument against it may well prove futile.

Incompatible With Our Culture.

The genius of the American soldier has always lain in his unmilitarized point of view or philosophy. In combat or other genuinely martial operations the American fighting man has been imaginative, inventive and aggressive. He has accepted armed force routines as necessary evils. He has never succumbed to these routines in a psychological sense. Nor has he wanted to see his community and family relationships militarized.

This essentially civilian point of view, mediated as it was by military instruction in the art of war, has up until now given us an aggressive army capable of responding quickly to functional training and always an army dedicated to a short, purposeful war.

To one who has served with soldiers of a dozen foreign nations, mostly militarized in their culture, the differences between our soldiers and theirs are as black is to white. The army of a European nation possesses the soldier. Always he sees the caste system of his civilian life carried over into his military life. He is always fighting a war for his officer class. Finally, he either surrenders his judgment and his value-determining activities to the officer class

or else joins a "resistance cell" of some kind. He cannot accept good naturedly his temporary status as a private first class knowing that neither his judgment nor his social status is impugned thereby.

Not Good for Armed Forces.

The preceding argument is basically a cultural objection to peacetime conscription and training, although it does involve certain objections of a military nature. However, U.M.T. may be opposed on the ground that it will lower military efficiency.

First, it will substitute force for citizenship education as a method of recruiting. This means that nearly all of the future soldiers of the regular army and national guard will enter those forces on a low morale basis. Old national guardsmen have grave doubts as to whether the U.M.T. threat is a good method of filling up the ranks.

Second, it will result in a vast pool of soldiers not readily available for a "quickie" war, if one should come. Would it not be better to have a smaller armed force of professionals ready to act on a moment's notice? In case our present diplomatic effort of peacemaking and world government making should fail, we shall, it seems probable, be compelled to resort to a localized unit of integrated civilian and military defense. No pool of persons with army camp training will help materially in such an eventuality.

Third, U.M.T. will create a false sense of security since no number of civilians with basic training will provide us with either a striking force or a defense force. And we must have both if we should face a war.

Fourth, it will weaken effective security since it will draw funds from the five essential activities in a good security program, namely, (1) an alert professional army, navy and air force; (2) an ever ready predetermined plan for industrial mobilization; (3) research in security measures; (4) an effective organized reserve and national guard and, above all, (5) a complete system of community education.

Eisenhower's Views.

It is of interest to examine General Eisenhower's views on the value of U.M.T. Soon after his return from Europe in 1945, he stated that such

training includes usually physical hardening, technical training and psychological training. Physical hardening, in his opinion, will always have to be repeated after the war starts but takes the least time. His statements on technical training imply that this might be conducted more adequately through our schools and colleges. Then he states:

"Psychological indoctrination and moral training require the longest time, but fortunately these are never completely forgotten. This type of training is of incalculable importance; through it are obtained battlefield discipline, esprit, an understanding of the basic justice of the fight the country is waging and a proper perspective of the contributions the individual is making to success. An informed, understanding soldier is a good soldier and units composed of such men are effective battle organizations. There is no possibility of overemphasizing the value of intelligent training of this kind."¹

The commentary made on this statement by the *Christian Century* seems highly appropriate:

"Here is one of the most revealing and at the same time frightening arguments for peacetime conscription ever advanced in a democratic society. What General Eisenhower says is, in effect, that while conscription will serve a little to make men physically fit and technically competent to handle the intricate weapons of modern warfare, most of this training will have to be done over again when war starts or left to the professional soldiers who can give years to it.

"But the one thing a year of military service can do ineradicably is to provide 'psychological indoctrination' in the military viewpoint. For when the general says that this will give 'a proper perspective of the contributions the individual is making to success,' what that means is, simply, acceptance of the principle of military discipline. The main purpose of peacetime conscription, it therefore appears, is to cause the mass of conscripts at the impressionable age of 18 to think within the framework of war and learn to obey without question."²

¹ U. S. 79th Congress, Select Committee on Postwar Military Policy, Hearings . . . pursuant to H. Res. 465, June 1945, Part 1, pp. 487-8.

² *Christian Century*, July 25, 1945, p. 854.

Education's Rôle *in* U.N.E.S.C.O.

KENNETH HOLLAND

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DELEGATES from 48 countries met in Paris from November 19 to Dec. 10, 1946, for the first conference of the United Nations Educational, Scientific and Cultural Organization. Of these countries, 30 had accepted the U.N.E.S.C.O. constitution and were full participating members; the others sent observers.

Prominent among the delegates present were ministers of education and distinguished professors from many parts of the world. Leon Blum, the former premier of France, was chairman of the conference.

American Delegation

The American delegation included several nationally known United States educators: Dr. George Stoddard, president of the University of Illinois; Dr. Arthur Compton, president of Washington University, St. Louis; Pearl Wanamaker, president of the National Education Association; Dr. George Shuster, president of Hunter College; Monsignor Frederick Hochwalt, director of the department of education, National Catholic Welfare Conference, and Dr. Charles Johnson, president of Fisk University.

Among the nations represented by observers, Yugoslavia was the only country with a Communist government. Because of the general belief that U.N.E.S.C.O. should represent all the peoples of the world, special interest was focused on the views of Yugoslavia as expressed by M. Vladislav Ribnikar.

The Yugoslav government had not become a full member, Mr. Ribnikar said, because it was feared that U.N.E.S.C.O. would impose "scien-

tific humanism" on the world's thought and cultural development. He pointed out that many people now believe in the philosophy of "dialectic materialism," because in their opinion it represents more directly the "facts of modern life." He went on to say that U.N.E.S.C.O. should impose neither philosophy on its members.

"International cultural cooperation," Mr. Ribnikar concluded, "means fruitful competition on the creative plane . . . from which should emerge the stabilization of values corresponding to the interests of the United Nations and of mankind."

Subsequent speeches by U.N.E.S.C.O. delegates emphasized again and again that the organization has no intention of imposing any kind of cultural dictatorship. Assistant Secretary Benton, head of the United States delegation, said: "U.N.E.S.C.O. does not believe and cannot believe that peace is to be obtained through the intellectual and cultural subjugation of the world by a single political philosophy or through the conversion of the world to any single religious faith."

A member of the British delegation stressed the point that U.N.E.S.C.O. is not trying to rule the world's thinking by a "standardization of philosophy," but that its goal is rather to establish "standards of value." Other delegates frequently stressed the value of cultural variety. During the three weeks of daily meetings, the Paris conference went on record as favoring a large number of programs. Suggestions came to the conference from the Preparatory Commission which had met al-

most continuously for over a year. Dr. Esther Brunauer, formerly with the American Association of University Women, and Dr. Howard Wilson of the Carnegie Endowment for International Peace played important rôles in the work of the Preparatory Commission.

The programs finally adopted at the Paris meeting included a wide range of projects in the fields of reconstruction and rehabilitation, natural sciences, the social sciences, humanities and philosophies, the creative arts, libraries and museums, the "mass mediums" (press, radio and motion pictures) and education. Space does not permit a résumé of all of these projects but a summary of those adopted in the field of education will serve as an illustration of the kind of international collaboration in the realm of ideas that U.N.E.S.C.O. will undertake.

Three Part Program

The education program can be divided into three major parts: (1) immediate work for international understanding; (2) long term work for international understanding; (3) improvement of teaching and teaching materials for international understanding.

The immediate program includes the following projects:

1. A study of education for international understanding in primary and secondary schools and in universities, in all member states, by the secretariat of U.N.E.S.C.O. This is to be started in 1947.

2. A seminar on education for international understanding for teachers from member states to be held in 1947. Regional seminars are also suggested.

3. Preparation of an international education yearbook.

4. The setting up of a clearing house of activities affecting the "exchange of persons" (students, teachers, specialists and the like).

5. Assistance to international relations clubs, providing information and materials for their use.

Long term plans include:

1. A program to help establish a minimum fundamental education.

2. The collection of data on adult education, its content and technics.

To assist in the improvement of teaching and teaching materials for international understanding, U.N.E.S.C.O. will:

1. Initiate a program for the improvement of textbooks and other teaching aids. This will involve a study by the organization of texts and materials now in use by member countries. U.N.E.S.C.O. will then draw up a set of principles or a code of ethics by which each member state may, if it wishes, analyze its own texts and materials. U.N.E.S.C.O., when invited, will also assist in developing the presentation of events and facts of international significance. If desirable, it will call a world conference on revisions and improvement of teaching materials. It will also encourage bilateral and regional agreements covering textbooks and teaching materials and will draft a "model agreement" for consideration by member states.

2. Draft a teachers' charter with a view to improving the status of teachers.

3. Serve also as a clearing house for studies on the teaching profession.

Other Recommendations

The final report also included recommendations for the creation of a committee on health education, in cooperation with the World Health Organization and the F.A.O.; a study of handicapped children, with particular reference to the war devastated countries, and the immediate resumption of cultural exchanges with former enemy countries.

Throughout the meetings the importance of national commissions in U.N.E.S.C.O.'s future work was stressed. American educators are represented on the U. S. National Commission by some 25 school administrators and teachers. The strength of America's participation in the international organization will come largely from the members of the National Commission and those for whom they speak.

Looking back at the Paris conference, I am convinced that the delegates reaffirmed the importance of education in U.N.E.S.C.O. Since the inception of the idea of the organization at the meeting of the Allied Ministers of Education in blitzed London, education has been a keystone in the structure. The \$6,000,000 budget voted for U.N.E.S.C.O.'s program during its first year is small in comparison with the job to be done. The continued interest and support of educators throughout the world

are essential if U.N.E.S.C.O. is to contribute greatly to working out that synthesis of goals, values and

aspirations which the new world community must evolve in order to assure its existence.

For a Free Press

THIRTEEN recommendations have been made by the Commission on Freedom of the Press in its report released March 26.

Headed by Chancellor Robert M. Hutchins and financed by Time, Inc. and Encyclopaedia Britannica Inc., the commission consisted of Zechariah Chafee Jr., William E. Hocking and Arthur M. Schlesinger of Harvard; Charles E. Merriam and Robert Redfield of the University of Chicago; President George N. Shuster of Hunter College; Harold D. Laswell of Yale; John M. Clark of Columbia; John Dickinson of the University of Pennsylvania; Reinhold Niebuhr of Union Theological Seminary; Archibald MacLeish, and Beardsley Ruml.

The recommendations follow:

Government

1. We recommend that the constitutional guarantees of the freedom of the press be recognized as including the radio and motion pictures.

2. We recommend that government facilitate new ventures in the communications industry, that it foster the introduction of new technics, that it maintain competition among large units through the antitrust laws, but that those laws be sparingly used to break up such units, and that, where concentration is necessary in communications, the government endeavor to see to it that the public gets the benefit of such concentration.

3. As an alternative to the present remedy for libel, we recommend legislation by which the injured party might obtain a retraction or a restatement of the facts by the offender or an opportunity to reply.

4. We recommend the repeal of legislation prohibiting expressions in favor of revolutionary changes in our institutions where there is no clear and present danger that violence will result from the expressions.

5. We recommend that the government, through the media of mass communication, inform the public of the facts with respect to its policies and of the purposes underlying

those policies and that, to the extent that private agencies of mass communication are unable or unwilling to supply such media to the government, the government itself may employ media of its own.

We also recommend that, where the private agencies of mass communication are unable or unwilling to supply information about this country to a particular foreign country or countries, the government employ mass communication media of its own to supplement this deficiency.

Press

1. We recommend that the agencies of mass communication accept the responsibilities of common carriers of information and discussion.

2. We recommend that the agencies of mass communication assume the responsibility of financing new, experimental activities in their field.

3. We recommend that the members of the press engage in vigorous mutual criticism.

4. We recommend that the press use every means that can be devised to increase the competence, independence and effectiveness of its staff.

5. We recommend that the radio industry take control of its programs and that it treat advertising as it is treated by the best newspapers in the country.

Public

1. We recommend that nonprofit institutions help supply the variety, quantity and quality of press service required by the American people.

2. We recommend the creation of academic-professional centers of advanced study, research and publication in the field of communications. We recommend further that existing schools of journalism exploit the total resources of their universities to the end that their students may obtain the broadest and most liberal training.

3. We recommend the establishment of a new and independent agency to appraise and report annually upon the performance of the public press.

THE NATION'S SCHOOLS PORTFOLIO

Harmon technic of classroom lighting here demonstrated at Rosedale School, Austin, Tex. The light desk tops have steel racks to hold books at the proper angle to the face. The chalkboard is sierra green and the tackboard of light finish. Prismatic glass block windows, with vision strip below, diffuse the natural light. See article on page 34.



LIGHTING COLOR FURNISHINGS



Rosedale School, Austin, Tex., is the site of experiments for both new and old classroom construction.

CLASSROOM LIGHTING: The Harmon Technic

MILDRED WHITCOMB

FIRST STEP IN HARMON TECHNIC IS PROPER
FENESTRATION. LIGHT-DIRECTIONAL GLASS
BLOCK PANEL WITH SUN HOOD AND VISION STRIP
IS RECOMMENDED FOR NEW SCHOOL STRUCTURES

MEASURING the human being as a whole in relation to his visual environment has been the work of Darell Boyd Harmon. His conclusions are astounding, and they could mean for all of us a thorough rethinking and redoing of classroom design.

Now Darell B. Harmon is an educator, not an architect or engineer. A psychophysicist working in the field of normal child development, he is director of school services of the Texas State Department of Health and it was in the course of a far-sighted interpretation of his public health duties that he developed a technic of classroom design that is far reaching in its implications and applications.

Throughout Texas a large number of schools are now being designed or redesigned in terms of his findings. Thousands of inquiries from architects, illuminating engineers and school administrators converge on his desk. Recently he addressed the Royal Institute of Canada and later a summary of his speech was broadcast over C.B.C. Some colleges and also industrial plants are reported to



A white ceiling acts as a reflector for light beams directed from the prismatic glass block window and for the luminous indirect fluorescent system used in two Rosedale rooms. Lamps are not visible from normal viewing angles. A louver replaces the door transom; glass fabric on the door panel prevents brightness contrast between corridor and classroom.

be designing new plants taking into account the tolerances established by the Texan, even though Dr. Harmon himself directs the application of his theories to the environment of young children. Nevertheless, his followers expect his technic eventually to be transferred to office building and industrial plant design.

Six leading materials and equipment manufacturers, their allegiances won by the results of eight years of Texas research, are now partly underwriting, with no strings attached, further Harmon experiments; funds from these commercial sponsors augment tax money in local school systems where these experiments are going on. At the same time some of these manufacturers have redesigned a product to meet the Harmon formula and to be tested experimentally in these schools.

Why and What of Harmon Technic

Let us go back to 1939 when the story begins. The state department of health started to study the health and growth of 160,000 Texas elementary school children. In that study Dr. Harmon discovered that the whole body is involved in the process of seeing. Bad lighting, he

found, can distort the whole child, his eyes, his muscles, his bones, his body structure, his learning.

To see properly, the child adjusts not only his eyes but his head, his trunk and his entire posture. The whole body tries to center itself on the brightest area affecting the eyes. At home on the floor with the Sunday comics, Johnny can squirm about until the light and his body position are in harmony. But it is in the classroom that he must sit at a close, sustained, visually centered task in an environment of pronounced contrasts of light and dark areas. To establish a balance between his environment and his work requires of him tiring physical and psychological effort.

Johnny's body may easily grow along the lines of stresses induced by poor lighting and other harmful environmental conditions and in the end the body structure may become asymmetrical with accompanying physical and psychological damage. Dr. Harmon also believes that ac-

tivity, in most instances, takes precedence over growth in the use of nutrients. If Johnny consumes too much of his expendable energy through continued bodily stresses caused by poor lighting, he has not enough left either to protect his growth or to provide a defense against infectious disease.

Having gained a scientific basis for these ideas through measurements of the 160,000 elementary school children, Dr. Harmon then set about to develop experimental classrooms in which the environment would be conducive to good seeing. Even in the first attempt made, he reported that the children showed ready improvement when lighting conditions were revised in line with this highly original approach.

The Harmon method is based on the comparatively recent criteria of illuminating engineers governing "brightness distribution." He has demonstrated in Texas that, when the child is doing close visual work, if any area in his field of vision is

more than three times brighter than the brightness of any other visible area, "the child is in trouble."

When the brightness ratio between the visual task and the entire visual field exceeds 3 to 1, the child's visual and bodily well-being are immediately threatened, Dr. Harmon maintains. Ultimately, failure to come within the tolerance of this brightness ratio means that the skeletal, biochemical and psychological nature of the child is disturbed.

The main factors in classroom design that require redoing to conform to the Harmon Technic are: (1) fenestration; (2) decoration of floors, ceilings and walls, including chalkboard and draperies; (3) furniture; (4) artificial lighting. Heating, air conditioning and other factors are under investigation.

The instinctive reaction of a school administrator, before allowing himself more than academic interest in the Harmon Technic, is warily to inquire: "How much is all this going to cost the taxpayers?"

Dr. Harmon has the answer and, happily, it won't frighten mouse or man. To install the Harmon Technic in all its phases in a new 20 room school building, using only the best of materials, will cost only an extra \$400 a classroom, or \$8000 for the building. In these inflated times \$8000 is just hay. To rehabilitate an old building in Harmonesque will cost from \$40 to \$175 a classroom, depending upon the circumstances.

The Mexia Experiments

At present, Texas has 24 school centers to demonstrate the effects of this new thinking on classroom environmental control. They are based on the findings of original experiments similar to those done at Mexia, Tex. Four of the classrooms of the W. M. White School at Mexia were redecorated, the pattern of seating was changed from fixed straight rows running parallel to the windows to an arc pattern, each seat being rotated at a 50 degree angle to the right and away from the front limit of the windows. In addition, new lighting controls, later to be described, were added.

Fenestration. On a sunny day and with the conventional clear glass windows, a child seated near the windows may have a contrast between the brightness of the sky in his field of vision and the brightness

of the task of as much as 50 to 1, while a child at the inside wall who can also see the sky will be subjected to a contrast between the sky and his task approaching 450 to 1.

To reduce the brightness at the windows and yet utilize this light in the room, the top shades were taken off the windows in one of the rooms and light diffusers made of white fabric stretched on wood frames were substituted. The frames were mounted on pulleys so that they could be lowered at an angle from the glass surface placing them tangent to the highest possible arc of the sky. Overlapping strips were provided to keep out streaks of sunshine. The lower shade was left intact.

It is common knowledge that about two thirds of the total working light in a room comes from the upper half of the window opening. The white fabric diffuser transmitted 60 per cent of the light in a diffuse manner and threw a large part of the remainder upward and across the ceiling from which it was reflected

downward upon the pupils' desks.

In another experimental room a light-directional glass block panel was built in above a strip of clear glass window. The clear glass strip was shielded from sun and glare by a built-in metal hood.

Decoration. No color was used in this original experiment as the whole effort was directed toward establishing brightness ratios; there was an added reason for excluding color since, improperly used, color carries its own danger to vision as will be pointed out later. The Mexia rooms were decorated in neutral shades.

In the Mexia rooms, the ceiling, rear wall and window walls were redecorated in a flat white paint having an initial reflectivity of 80 per cent, as was also the inside wall to within 7 feet of the floor. The lower section of the inside wall received a coat of the same paint with the brightness lowered, bringing its reflectivity down to 70 per cent. The front wall, to compensate for the lesser amount of light falling on it,

Luminous indirect incandescent equipment provides light in two of the Rosedale classrooms when daylight is inadequate. Yellow-green chalkboards have been installed. They have a reflection factor of about 30 per cent as compared with 5 per cent for most blackboards. The side walls in their newly formulated paint have 70-75 per cent reflectivity.



was given a paint with a slightly higher reflectivity, thus bringing the four walls and ceiling to a nearly uniform level of brightness.

Woodwork and trim in these rooms were done with the same matte paint, modified to a gray to give a 50 per cent reflection factor; floors were painted gray, with 30 per cent reflectivity, and desk surfaces and furniture were lightened and cleaned to a reflectivity of 30 per cent. Except for a comparatively limited area for teacher use, the blackboard was covered.

The Mexia experiment, so briefly sketched here, is described in full in *Architectural Record* (February 1946) and will be only briefly summarized.

The brightness ratio in various parts of the room varied from 2 to 1 to 10 to 1, an almost unbelievable achievement at that time.

Furniture. The old furniture was used throughout this experiment.

Artificial Lighting. No change was made in this factor.

The Rosedale Experiments

Today the Harmon Technic in its present stage of development can be seen in four of the eight rooms of Rosedale School, Austin, Tex. These rooms have been in operation since last November and they incorporate all Dr. Harmon's findings into a practical set of specifications for new classroom construction. The remaining four rooms now being renovated represent the latest word in what can be done in rehabilitating old classrooms.

Fenestration. Recently Dr. Harmon has developed a diffuser-reflector made of translucent materials mounted in metal frames which is an improvement over the Mexia diffuser-reflector. Now in production, it is recommended for old buildings. However, in the four Rosedale rooms, here to be described, the entire old window structure has been torn out from front to back wall. A light-directional glass block panel

stretching the length of the entire outside wall has been inserted in the upper part of this opening. Not of ordinary glass block but of especially designed prismatic glass block which reduces brightness at the eye level and transmits it upward and inward where it can be used to greater advantage, this panel, starting 6 feet from the floor, extends above the eye level of the seated pupils to the ceiling.

For social and psychological reasons only, the Rosedale rooms have a vision panel of clear glass below the glass block panel. Control of direct sunlight through the vision strip is achieved by means of venetian blinds.

Decoration. Having previously established brightness ratios at Mexia in terms of whites and grays, Dr. Harmon was ready at Rosedale to introduce color. To do this, he was confronted at the outset with a new problem in paint chemistry, namely, the mixing of paint not only to provide light reflectivity and light diffusion but also to utilize color without disturbing brightness ratios subjectively.

In fairly evenly illuminated surroundings, such as classrooms in which distribution of light has been controlled by Dr. Harmon's methods, various colors of the spectrum do not appear equally bright to the human

Below the prismatic glass block windows is the vision strip shaded by venetian blinds. The picture below was taken toward the light source and yet the sides of the pupils' faces are lighted, indicating closely balanced illumination for both eyes. Light desk tops prevent brightness contrast with work. For reading, desk tops may be set at 20° angle.



eye. The difference in brightness between colors is apparent even though paints in various colors have been equally saturated as to pigments. Colors toward the middle of the spectrum, such as yellow-green, appear much brighter than colors toward either extreme. This difference in apparent brightness between colors is "subjective brightness," and contrasts in subjective brightness affect the child's stresses and performances much as do contrasts in the actual distribution of light.

Formulas were worked out by Dr. Harmon for the Rosedale School decorations so, through combinations of mathematically determined letdowns or shading, two or more different colors could be used in a classroom without having adverse contrasts of subjective or color brightness. This may be noted in the accompanying photographs of Rosedale classroom interiors.

Although various color combinations were used in these rooms and the panchromatic film with which these pictures were taken is sensitized to show color differences, this method of balancing subjective brightness shows all comparable wall areas as having the same "gray" values (color brightness balances) in the black and white pictures.

Human Eye Not "Color Corrected"

A second color problem also entered into planning decorations at Rosedale. The human eye is not "color corrected" like a modern camera. Various colors fall to focus at different points in front of, on and behind the retina. A high frequency color (short wave length) will refract sharply bringing it to focus in front of the retina. A low frequency (long wave length) color will be slower in coming to focus so it will fall to focus behind the retina. Each wave length falls to focus at a different point in space in relation to the retina, so each color will have a different effect at the retina.

This lack of color correction in the human eye, which prevents all colors from falling to equal focus on the retina, is technically known as chromatic aberration. Because of chromatic aberration various colors radiated from equal sized areas in the same plane of vision will make those areas appear as if they were different in size or on different planes. In addition, colors of short wave length

will force the eyes to perform as if they were farsighted, and colors of long wave length will force near-sighted performance.

In immature eyes or in children's eyes, which still must be fully conditioned to perform efficiently in our culturally determined close and sustained visual tasks, these differences in the optical effects of various colors can be severe stress producing factors if decorations are not planned to take them into account. Such planning must include consideration of the tasks to be performed by the children, the size and shape of the room areas to be decorated and the relation of these background areas to each child's task area.

Visual Function Basic to Planning

Dr. Harmon's decoration plan for Rosedale took into account these various factors, and colors were chosen, mixed and applied to various wall areas according to the visual maturity of the children in each room and according to the tasks they would be required to perform in these rooms. Through this planning of decoration according to the children's visual functioning, every aspect of the child's visual field appears to him in its proper spatial and functional relationship, making his surroundings a balanced whole in which he can perform freely and without adverse stress.

The generally accepted view among color authorities has been that the distinction between warm and cool colors is psychological. Harmon research proves that the distinction is measurable, at least partly, in physical terms. By changing the color of paint on the walls and ceiling, Dr. Harmon found that as much as a 5 degree change in room temperature can be effected. The explanation of this phenomenon lies in the rapidity of heat reflection by some colors. If the classroom has on walls and ceiling a paint that will absorb heat, the heat will stay on the surface of the wall and be re-radiated very slowly. If it reflects heat waves, the heat will radiate out into the room rapidly, to be soon felt by those in the room.

After much research, it is possible, in new painting formulas now represented on the walls of Rosedale School, to use any one of many different colors that all have light value well inside the physiological tolerances of children. The brightness

distribution achieved in gray and white at Mexia has now been duplicated at Rosedale School in varying and satisfying colors.

Johnny, from any seat in his Rosedale classroom, can look at any spot and see nothing that is more than three times brighter than anything else in the field of his vision or three times brighter than his working surface. Thus the Harmon Technic, through research in paint, has been achieved with color added even more successfully than in the original experiment at Mexia with color excluded.

Rosedale ceilings in their newly formulated paint have from 85 to 90 per cent reflectivity; the main part of the walls, from 70 to 75 per cent, and the lower walls, 50 per cent. Nor is this reflectivity the initial measurement; it represents maintained reflectivity inasmuch as it is claimed for these new paints that they lose no more than approximately 5 per cent of their reflection factor in the course of their duration on the walls. This is in contrast with some paints, said to lose up to half their initial reflectivity.

While probably applicable in other painting mediums, the Rosedale formulas were worked out in casein emulsion paints. Resin emulsion paints were used on dados, where maintenance problems are usually greater, because of the added washability of these paints. Both paints are water thinned.

Floor Treatment at Rosedale

Floors at Rosedale are wood; they have been bleached and sealed and are maintained at a reflectivity of from 25 to 35 per cent. Asphalt tile or other floor coverings with a similar reflectivity can be employed to equal advantage.

Yellow-green chalkboards have been installed at Rosedale; they have a reflection factor of approximately 30 per cent as against less than 5 per cent for most blackboards. Modern education finds a much reduced need for chalkboards, except possibly in mathematics and science rooms where extensive teacher demonstrations are necessary.

In rooms having large areas of old-fashioned blackboard, Dr. Harmon advises covering most of the board areas with tackboards or with the same color paint as is on the walls. When the blackboard area is in the

front of the room or in some other central area of vision, he recommends reducing the size to approximately half the width of the room.

At Rosedale the glass areas, such as in doors, have been covered with a glass cloth with the same degree of reflectivity as the adjacent walls have.

Transoms designed to transmit borrowed light and occasionally opened for ventilating purposes have been replaced by opaque louvers covered with a highly reflective paint. Light measurements taken in the corridors show that these louvered openings admit five times as much light on the floor as did the original transparent glass covering; moreover they do not impede ventilation.

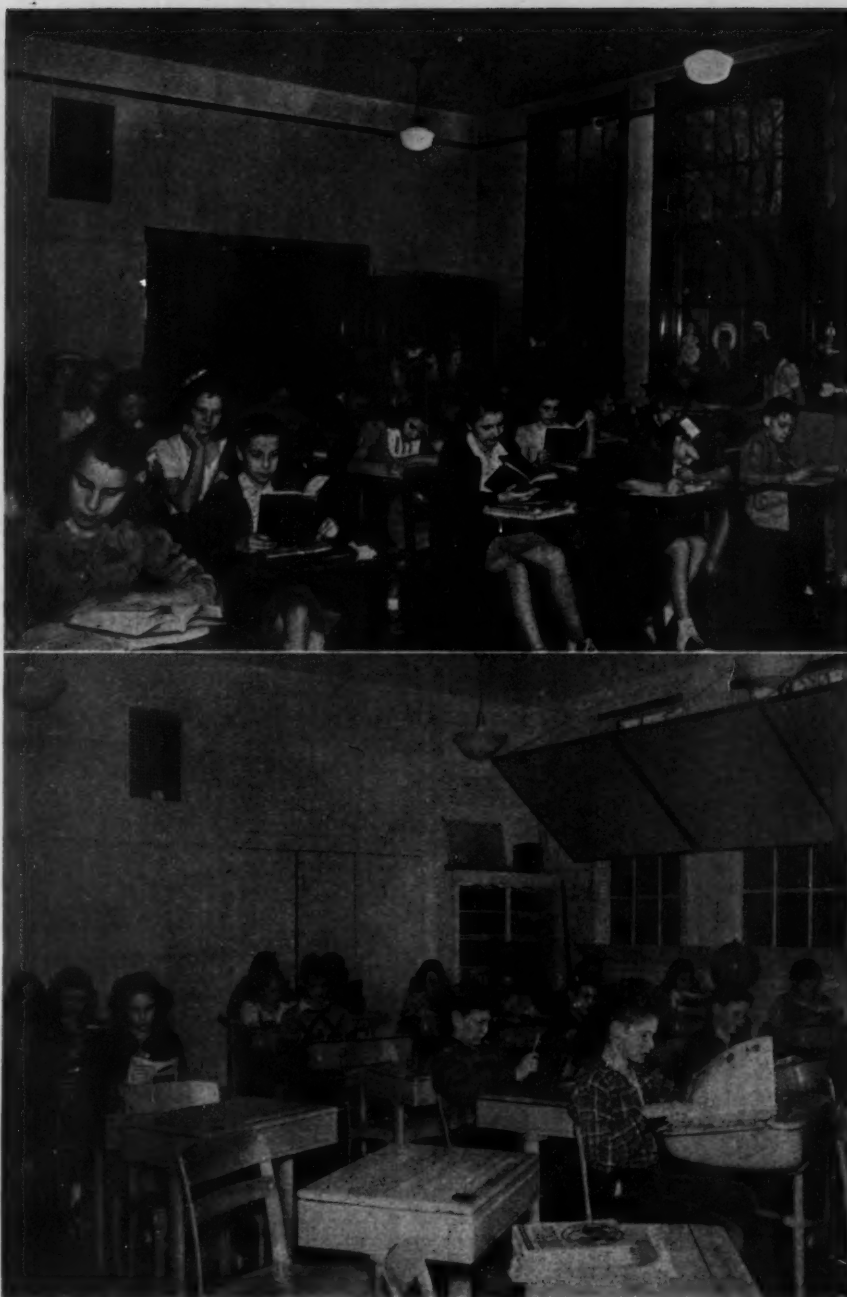
Furniture. The Mexia experiment has been conducted with traditional furniture but Rosedale School boasts especially designed desks in compliance with Dr. Harmon's theories of brightness distribution and eye-head-arms-trunk relationships.

Features of the Harmon Desk

But to promote proper posture and sight conservation, the Harmon desk, still in the experimental stage, has an adjustable top. For reading and writing, the desk top is set at a 20 degree angle, which is the normal angle at which a person holds a book in his hands for reading purposes when he sits erect. It is also possible to adjust the desk to a horizontal position for modeling and other three dimensional activity. The chair may be moved back and forth so that the child can adjust to a physiologically sound position for full and free performance of all parts of his visually centered task.

Naturally, the desk top is of natural finish light wood, as is also the bucket shaped seat with its two-slatted back, the lower slat of which adjusts to fit and support the child's back. The framework of the desk is of metal, which is painted in a light gray-beige.

Artificial Lighting. Two of the new rooms at Rosedale School have fluorescent lighting; two, incandescent. One of the especially designed fluorescent lighting installations is in use in no other school at the present time. The indirect luminaires have molded translucent plastic reflectors of such density that, when lighted, they and the illuminated ceiling are of approximately the same brightness. Dr. Harmon's research seems to



Before the installation of the Harmon Technic in a classroom at Wilmette, Ill. (top), the brightness contrast was pronounced. Above: Now children see nothing more than three times brighter than their own desks.

indicate that the high light intensities recommended by illuminating engineers during the past few years may not be nearly as important as is the proper brightness ratio in the field of vision; the greater brightness contrast, the higher the amount of illumination necessary to overcome it.

The new fluorescent fixtures at Rosedale use a wattage of from 2100 to 2200 a room, and when the rooms are used at night, owing to the highly reflective painted surfaces, the illumination is adequate. The incandescent lights use 3000 watts for these standard sized classrooms; the

lamps are enclosed in luminous indirect plastic bowls.

There are other schools outside of Texas in which the Harmon Technic is being tested voluntarily. A Harmon room in each of two schools at Wilmette, Ill., has been visited recently and the technic is also being tried at LaGrange, Ill. A large Chicago mail order house, in an effort to reduce bookkeeping errors, is now engaged in a similar experiment in its bookkeeping department.

Follow-ups on the Rosedale School tests and some of the others will be published from time to time.

Functionalism With Color

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DURING the war a tremendous fund of knowledge was gained regarding the use of color. To cope with morale problems, eyestrain and fatigue, numerous technicians in the field of vision and illumination undertook clinical studies and developed principles which can be well capitalized upon by schools in this country today. While a good looking school plan is obviously desirable, making in-

terior decoration a first consideration is by no means the right course to follow in the writing of specifications. Beauty must follow purpose. In a schoolroom in which critical seeing tasks are performed, adequate illumination must be present, glare must be overcome, brightness within

the field must be uniform so as to prevent constant eye adjustments.

High visibility, seeing comfort, relief from physical and emotional tension, all are involved in the proper use of color in the classroom and can be effectively achieved. Naturally, guesswork and highly

Before and after views of the fifth grade room of the Bowditch School at Salem, Mass.

Dark walls were painted a pale coral color. An asphalt tile floor of light gray was installed. New seating units of light colored wood replaced the old oak-finished desks and seats.

Whereas the windows in the original room were hung with roller shades, those in the redecorated room are fitted with vertical louvers which eliminate the sky brightness at forward angles and allow as much daylight as practicable to reach the dark side of the room away from windows and facilitate seeing.



personal opinions should be avoided.

Fortunately, the growth of the science of brightness engineering has to a large extent obviated the need for mere artistry in the choice of color. Something of an engineering method may be adopted in choosing colors, for the causes of eyestrain are measurable. Technical principles have been set forth which simplify the school problem and allow for a direct and functional approach.

Today, nearly 60 per cent of school children have eye defects. The percentage may run from 18 in the first grade to more than 80 at the end of the elementary period. About 30 per cent of average pupils have posture disturbances which can be attributed, in part at least, to abuse of the eyes and to physical efforts to see clearly. Backward children are also notoriously given to various eye defects.

D. B. Harmon, whose article appears on another page, has written, "Organisms, including man, do not see to see—they see to act." Hence, it is not enough to use pretty colors in the school environment. A far greater duty is to make sure that the seeing task is made relatively simple, that illumination and brightness are well balanced and that minimum effort is required for the pupil to co-ordinate visual and physical reactions.

Pale Colors Not Always Best

There is a trend today toward the use of pale and light colors, approaching white. While such tints may be efficient in reflecting light, they are not always best and easiest on the eyes. M. Luckiesh, an authority on the science of seeing, writes, "In general, it may be concluded

that a brighter surrounding field is more detrimental than a darker one. . . . Visual efficiency is at a maximum when the brightness of the central field is equal to that of the surroundings. . . . A brighter surrounding field reduces visual efficiency more than one which is darker than the central field."

In the writing of color specifications for schools, it is easy to describe and explain the general principles and technical factors that should be considered. To begin with, color in and of itself is of less importance than the quality of brightness. It is brightness that reflects the light, regulates the eye, aids or defeats visibility. And these brightnesses should be carefully controlled.

Yet all colors are meaningless without light. In the illumination of schoolrooms, lighting should be adequate (30 foot-candles or more). And equally important, such illumination should be as evenly distributed as possible. When daylight is used,



Before and after views of the same room in the Bowditch School showing the remaining two walls.



Every factor which affects seeing was changed in the remodeling of this room. Old style incandescent lighting fixtures which provided no more than 10 foot-candles of illumination were replaced with fluorescent lighting fixtures giving around 40 foot-candles of illumination.

Old blackboards were replaced with white glass chalkboards. Desk tops and chairs are tilted at $18\frac{1}{2}$ degree angles to facilitate seeing and the seats are self adjusting to accommodate pupils of different sizes and to meet shifts in position which pupils constantly make.



In the fluorescent lighting fixtures in the Bowditch School classroom, the side facing the pupils has a glass of heavier density than the other side. Its brightness is approximately half the amount of the other side and is easy on the children's eyes. The high brightness side gives sufficient vertical illumination on the chalkboard so that auxiliary lighting is not necessary. The system is designed to provide about 40 foot-candles of light in the room.

desks adjacent to windows may receive as much as seven or eight times more light than desks at the far side of the room.

Pupils seated at desks away from the windows may thus be handicapped not alone by feeble light but by excessive glare at the side. Venetian blinds or window louvers running vertically or horizontally are desirable, since they spread daylight more uniformly throughout the interior as well as block off sky glare.

When artificial light sources are employed, again a uniform distribution of light is wanted. Exposed lamp bulbs or fluorescent tubes are inimical to good vision, particularly where the ceiling is low. In many respects the semi-indirect system of lighting is ideal. Here, the lamps or tubes are covered by semi-opaque glass or hidden by baffles. Because light is reflected from the ceiling and also transmitted from the fixture, the eye is not troubled by great

brightness extremes. Where the lighting system is well designed, the ceiling brightness may approximately equal the fixture brightness, the entire overhead being soft and luminous.

In the critical seeing tasks performed in schools, adjustments of the eye should be held fairly uniform. Here is where color plays a dominant rôle. If there is glare or high brightness extremes, the pupil of the eye may be severely constricted, or constant pupillary changes may be demanded. Eye-strain will be evidenced in lowered

visual acuity, increased rate of blinking, collapse of the "visual form fields" (the outer boundaries of the retina growing less sensitive). The pupil may hunch over to see better, experience headache, nausea, emotional irritation, bodily fatigue.

In the application of good scientific practice, brightness ratios should be intelligently planned and carried out. These should not exceed 1 to 10, if at all possible. Ratios greater than this will tax human vision, a fact demonstrated by actual test. Once again, the color plan should be "engineered" rather than based on



Louvers at the windows of the remodeled classroom cover the upper three fourths of the glass and swing upward when the windows are being washed. The great reduction of sky brightness accomplished by the louvers is made at the expense of only a small loss of light on the farthest desks.

The louvers are 4 inches wide and are spaced $3\frac{1}{2}$ inches apart. Their design permits children to see the sky easily and prevents a shut-in feeling. Louvers are made of steel. To exclude direct sunlight, light translucent roller shades have been installed. They may be pulled down behind the louvers.

any esthetic and decorative notions.

To achieve maximum efficiency from natural and artificial light sources, the ceiling, in practically all cases, should be white. This is advantageous where window louvers are installed and where indirect or semi-indirect fixtures are used. Colors on ceilings distract attention and waste light. To make ceilings anything but white is merely equivalent to cutting down the intensity of illumination as though by a rheostat. Obviously, the schoolroom needs more light, not less.

As to walls, normally there is seldom need for paints that reflect more than 60 or 70 per cent of light. With reflectances higher than this, serious trouble may be encountered. Conditions of excessive glare may be introduced and the eye may be handicapped rather than aided.

Attention should also, of course, be paid to the floor and to equipment. Natural woods, when kept clean, reflect about 25 per cent of light. With a 50 per cent tone used on walls, and white on the ceiling which is generally out of direct range of vision, the pupil can look about the room without discomfort. His eye can stay at one steady adjustment. Because eyestrain has muscular origin, fatigue, nervousness and tension will be reduced.

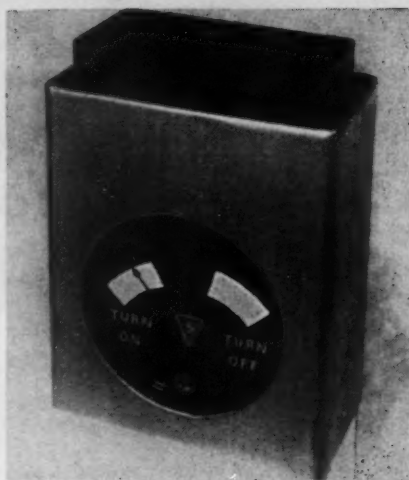
Human Complexion Reflects Light

As to appearance, the average human complexion also reflects about 50 per cent of light. Hence, there will be no unfavorable contrast with walls, no bright areas that may cause "blur" and "halos" when the pupils look at one another or at the instructor.

Thus we should have white for the ceiling; 50 to 60 per cent reflectance for the walls; 25 per cent or better reflectance for floors and equipment.

With the best principles of brightness engineering applied, the more psychological quality of color may be considered. Choice here may also follow a technical method and capitalize on a wealth of research.

In general, such colors as ivory and pale yellow are excellent for corridors, stairwells and rooms deprived of natural light but not used for critical seeing tasks. These colors suggest sunlight, add apparent luminosity to existing light sources and offer an interesting sequence, with



Lighting Indicator

Normally, the needle is out of sight but when daylight falls off so that the illumination on the monitor's desk goes below 40 foot-candles, the needle appears in the left hand window. The monitor then turns on switch No. 2 which controls the lower two lamps in the fixtures in the middle row and the upper two lamps in those nearest the windows. This adds 16 foot-candles to the illumination and the needle then goes out of sight again behind the center portion of the indicator face.

other and more subdued tones recommended for classrooms.

In the classroom itself, a number of colors and color effects are appropriate. In the main, the two best hues to employ are a pale blue-green and a peach. Pale yellows and blues, being primitive in quality, are likely to appear rather bleak and monotonous.

Tones such as ivory, buff and tan lack character and are more or less associated with the conventions of the past. However, peach (a combination of yellow and orange with white) and blue-green (a combination of blue and green with white) have subtlety and beauty and are suitable for rooms occupied for long periods of time.

Peach as a classroom color may be specified for rooms having a north exposure or where natural light may be weak, such as in courts. It is warm and mellow in character and any reflections from it will be flattering to human appearance. Blue-green, on the other hand, is the di-

rect complement of human complexion. Where the eye is exposed to it, after-images are produced on the retina which give a pinkish cast by complementation. Blue-green is excellent for rooms having intense light and for south exposures and relatively warm climates.

These hues, as before mentioned, should have a reflectance of from 50 to 60 per cent. The treatment of end walls also should be considered. Because pupils are generally seated so as to face in one direction, there is an opportunity to treat the front end of the room in a slightly softer and deeper tone having a reflectance of from 25 to 40 per cent. Such areas will serve a number of functional purposes.

Aid Process of Vision

They will provide visual and emotional relaxation. They will rest the eyes and allow for better visibility. The appearance of the instructor, the exhibition of any charts or materials will be improved, simply because it is easier for the eye to see lightness against darkness than darkness against lightness. In brief, the whole process of vision is one that reacts quickly to light objects and surfaces and slowly to dark ones. Where the end wall treatment is applied as suggested, the best in seeing efficiency and comfort is assured.

Good colors to use for end walls are medium blue-greens; soft grayish blues; deep peach or rose tones. These may be variously handled. The medium blue-green end wall may have pale blue-green sidewalls, or peach sidewalls where a more vigorous effect is wanted. The deep peach or rose end wall may be used with warm tones on the sidewalls, or complementary tints, such as pale green or blue. One impressive device is to color the side and rear walls in a light pearl gray. This tone, being neutral, will lend itself to almost any end wall treatment.

Where blackboards exist it is preferable to have them surrounded by deep tones rather than light ones, so as to reduce contrast and minimize visual shock. Current developments will undoubtedly lead to the replacement of blackboards with materials of lighter tone. This will be a great improvement for it will mean greater lighting efficiency and will make possible the use of generally lighter colors in the classroom.

Modern Trends in School Lighting

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TODAY'S thinking and planning in regard to school lighting show definite advancement over that of the prewar period and indicate some significant trends. The changes are due largely to the advent of new light sources, new lighting technics and an increase in the knowledge of the fundamentals of comfortable and efficient seeing.

Some of these developments are the logical result of years of research, while others stem more directly from experience gained in lighting for maximum war production. Altogether, they furnish materials and methods which are having a decided influence on architects, illuminating engineers and also school executives.

One of the new trends in lighting knowledge is the realization that the *quality* of lighting in schools is of paramount importance. Educators report that critical visual tasks are increasing in the schoolroom, both in severity and in duration. Research indicates that proper lighting will help in preserving good eyes, aid impaired eyesight, reduce strain and physical fatigue and increase educational efficiency. The need for high quality lighting is greater today than ever before and the consequences arising from failure to provide it will be increasingly serious.

Quality lighting can be obtained from either incandescent filament or fluorescent lamps. Exceedingly un-

comfortable lighting can be furnished from the same sources also, through improper equipment and poor installation. The greatest factor in making certain that a school lighting system will be comfortable is a careful control of brightnesses in the visual field—a matter in which the light source and the lighting equipment play a major part but which involves the reflection factor of the work and the various surfaces of the room as well.

Good school lighting must have an adequate lighting level as the basic foundation, that is, enough light so that the school tasks which involve small size (fine print on maps, dictionaries, reference notes, sewing and drafting) or poor brightness contrast (hard pencil marks on poor grade paper, faulty mimeographing) may be seen accurately, efficiently and with a minimum of fatigue.

It is not enough, however, just to supply an adequate amount of light. There must also be proper light distribution, absence of glare and correct brightness control. The choice of the light source, the selection of the lighting unit and the engineering of the installation must be made with full consideration of the lighting level desired and the principles of good light distribution, elimination of glare and careful brightness control or the results in the room will not be completely satisfactory.



Fig. 1—Plastic luminous-indirect lighting units combine with room background finishes to give comfortable lighting in the kindergarten of the Caledonia School at East Cleveland.

A wise choice of lighting equipment with correct spacing of the units can produce the even spread of well diffused light with the minimum of shadows which gives good light distribution. Measures can be taken also to reduce or to eliminate glare, although glare is rather complex, depending upon the brightness of the source, its size, its position in the visual field, the relative brightness of the surroundings and the length of time of viewing. Illuminating engineers have been working on these problems for years and have means for solving them.

An appreciation of the importance of the control of brightnesses in the schoolroom is a fairly recent development. It is now realized that the most efficient seeing with the greatest comfort and the least fatigue for sustained visual tasks is obtained when the brightnesses in the visual field are carefully controlled.

This is a most important principle. It affects the type of lighting equipment and the finishes of walls, ceilings, floors, desk tops and chalkboards. All have a part in the excellence (or lack of it) of the seeing conditions in the school.

What Experience Indicates

Suggestions for the finishes of classroom surfaces can be summarized from the results of experience in existing classrooms which indicate that reflection factors of 80 per cent or better for ceilings, 50 to 65 per cent for walls, approximately 35 per cent for the trim (around chalkboards, tackboards and windows), 35 to 50 per cent for desk tops and perhaps a colored blackboard with a reflectance of from 15 to 20 per cent seem to fulfill the specifications for good brightness control in a practical manner. All of these finishes should be matte or nearly so in order to reduce the possibility of glaring reflections.

One other factor should be considered also: the possibility of keeping the lighting system satisfactory through good maintenance. Any lighting system will be spoiled by dirt and the problem of keeping the lighting units clean is important and often neglected in schools. Since the maintenance of the lighting equipment is usually done by the school custodian, he should be helped by being furnished a type of unit which is easy to keep clean and which will show plainly when it needs attention.



Fig. 2—Good lighting in the Kensington Park School, Contra Costa County, California, is provided by 750 watt silvered bowl lamps.



Fig. 3—Fixtures in the Lakewood School, Long Beach, Calif., are a combination of vertical concentric louvers and silvered bowl lamps.

A thorough cleaning of the lighting equipment three times a year is recommended (during the Christmas vacation, spring vacation and just before school starts in the fall). Too many schools clean the luminaires no oftener than once a year, generally during the summer vacation. Adequate plans for maintenance must be established if the quality of the lighting is to be maintained.

In incandescent filament lighting, the trend has been, and is, toward indirect and luminous-indirect luminaires as the only types of lighting equipment with this light source which can give the required brightness control and freedom from glare. Luminous-indirect units of glass, or of plastic as used in the kindergarten

of the Caledonia School, East Cleveland, Ohio, (Fig. 1), give comfortable brightness ratios with the background of ceiling and upper wall and fulfill the specifications of good diffusion and absence of glare.

Many schools are interested in the silvered bowl lamp as it is easy to keep clean and has the additional advantage of furnishing a new and efficient reflecting surface every time a lamp is replaced. The fifth grade classroom of the Kensington Park School, Contra Costa County, California, (Fig. 2) is lighted with 750 watt silvered bowl lamps in luminous-indirect fixtures.

A still more easily maintained unit is used in the Lakewood School, Long Beach, Calif., (Fig. 3) where



Fig. 4—Four rows of plastic luminous-indirect fluorescent fixtures give excellent light in the Warring School, Poughkeepsie, N. Y. The green glass chalkboard harmonizes with walls.

three vertical louvers mounted as concentric circles around the silvered bowl lamp are used to shield the bright upper part of the lamp from view. With all the surfaces vertical or nearly so, there is a minimum opportunity for dirt to settle on the luminaire and reduce the lighting efficiency.

The fluorescent lamp, introduced shortly before the war, rapidly came to assume a position of major importance in the lighting field under the impetus of the long working hours and the necessity for high seeing efficiency in connection with the war effort. The high efficiency and the low radiant heat emission of this lamp allow higher lighting levels to be reached at reasonable consumption of electrical energy and with physical comfort.

Correct Use of Fluorescent Lamps

Much knowledge has been gained regarding the correct application of fluorescent lamps. An entirely new approach to school lighting is made possible. The fluorescent lamp must be considered seriously in any plans for new construction or for relighting.

Unfortunately, there has been some confusion in regard to fluorescent lamps because of the terms "cold cathode" and "hot cathode." In spite of the tendency of some to consider

the cold cathode lamp as an entirely different type of light source from hot cathode, both are fluorescent lamps with the same light radiation from the same fluorescent material. The difference lies only in the type of electrode used and the physical dimensions of the lamps necessitated by the electrodes.

Cold Cathode Lamp

The cold cathode lamp is long, small in diameter and has the relative advantage of long life, particularly with frequent starting, although this is not a clear gain as there is some decrease in lamp efficiency with increase in hours operated. The hot cathode lamp is made in a variety of lengths, diameters and wattages and has the relative advantages of higher efficiency and greater flexibility. Both types can be obtained with instant starting.

The following discussion concerning the use of fluorescent lamps can apply to lamps using either type of electrode if the same principles of shielding and brightness control are carried out. The illustrations accompanying this article, however, are all of installations using the standard hot cathode fluorescent lamp, as more progress has been made to date in developing equipment with adequate shielding and louvers for this type of lamp than for the cold cathode.

Since indirect and luminous-indirect equipment gives quality lighting with incandescent filament lamps, it follows that comparable quality with less heat per foot-candle can be obtained with similar luminaires designed for fluorescent lamps. Excellent examples of indirect fluorescent lighting are seen in the classrooms in the Warring School, Poughkeepsie, N. Y., (Fig. 4) and in the Oak Park and River Forest Township High School, Oak Park, Ill., (Fig. 5) where luminous-indirect units are combined with carefully selected finishes to give comfortable brightness ratios and well diffused, virtually shadowless lighting.

Cleaning Facilitated

Because lighting units of this type are open at the top and closed at the bottom they catch dirt and require fairly frequent cleaning but the designers of such equipment have considered the problem carefully and fixtures are constructed so as to facilitate cleaning.

For new construction, many architects and school executives like recessed fluorescent troffers set in acoustical ceilings because of the modern appearance and uncluttered ceiling which this type of construction provides. Interesting and attractive ceiling patterns can be introduced by using recessed troffers.

The quality and comfort of this type of installation depend to a large degree upon the control of the brightness of the troffer itself, especially the sides that are seen at normal viewing angles, and upon making the ceiling between troffers sufficiently bright through light reflected to it from below. The new aluminum troffer is particularly satisfactory and comfortable for this service.

Much interest has been shown in the use of semidirect fluorescent equipment for both new and relighting applications. Open at both top and bottom, such equipment with proper shielding and correct mounting can give good brightness control and efficient light utilization. There is a minimum tendency for dirt to collect on this type of unit as the shields or louvers are either vertical or nearly so.

Continuous rows of semidirect fluorescent units are used in the sixth grade classroom of the Oxford School, Cleveland Heights, Ohio, (Fig. 6). With the aim of furnishing a high quality of seeing comfort in a practical manner, the room was considered as a whole and the lighting and finishes were specified as part of the same project.

Desk Tops Refinished

The room was painted to give the desired reflectances and the custodian refinished the desk tops, providing them with a natural wood, non-specular finish of approximately 45 per cent reflectance. The average lighting level after seven weeks' operation was 58 foot-candles and the brightnesses are such that the room is exceptionally comfortable and attractive.

Some schools which introduce a new idea in school lighting have been designed and are now under construction. The apparent ceilings of the classrooms in these schools will consist of an open grille pattern of vertical louvers; these will give approximately 45 degree shielding for the fluorescent lamps which will be mounted above them. This design will allow high lighting levels with good brightness control, comfort and attractive appearance, as neither the lamps nor the bright ceiling will be visible at normal viewing angles.

As architects become more aware of the possibilities of, and get better acquainted with, the types and characteristics of fluorescent lamps which

are available, it is predicted that there will be much new construction in which the lighting equipment is incorporated into the interior design of the room.

The trends in school lighting are apparent. The most important trend is the realization that the lighting must be of high quality; that the principles of comfortable and efficient seeing must be applied to the lighting of schoolrooms, irrespective of the type of light source which is used.

Secondary Trends

This, in turn, sets up secondary trends: that the luminaire be designed to keep the brightnesses, both direct and reflected, within desirable limits; that the luminaire be efficient and maintenance be planned to preserve that efficiency; that the reflectances of all the surfaces in the

visual field be carefully selected in order to control the brightnesses and brightness ratios in the field of view, and that the principles of quality lighting enter into the control of day lighting as well as lighting from electrical sources.

Improvements in Lamp Will Help

There is a definite trend also toward the higher lighting levels which are best supplied by the fluorescent lamp. It is believed that future improvements in the fluorescent lamp and its control will accelerate that trend.

These trends are pointing the way of future progress. They indicate the factors which must be considered in order to obtain satisfactory seeing conditions in the schoolroom. Humanitarian and practical reasons together demand that school lighting must be quality lighting.



Fig. 5
Luminous-indirect units supply light in the Oak Park High School, Oak Park, Ill. Each 5 foot section has two 100 watt fluorescent lamps. Light shades over doors and blackboards improve the room brightness.



Fig. 6—A scheme of lighting and room finishes in the Oxford School, Cleveland Heights, Ohio, provides excellent seeing conditions.

Safety Through Color

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THE language of color speaks more clearly, powerfully and frequently than do words of speech. Never can the repetition of sounds give a message as effectively as the constantly seen warning of color, color being a language understood by all.

In recent years, extensive studies in industry have proved the value of color in safeguarding workers against injury, in relieving fatigue and in adding to human efficiency. Sound principles are to be developed which apply to school shops of all kinds—metal working, woodworking, printing—as well as to all school service facilities, such as boiler rooms and maintenance shops.

One functional use for color is to promote uniform safety standards. In developing a color code, five colors have been chosen—yellow, orange, green, red and blue—each easily recognizable under all conditions of lighting and readily identified by name even by the most primitive humans.

Each Color Has Special Task

A special task has been assigned to each of these colors. In the case of specific hazards, each color serves as a symbol.

Yellow, being the color possessing the greatest degree of visibility, has been chosen to mark stumbling, falling, tripping and striking hazards.

Orange symbolizes a high degree of danger when used around parts that might cut, crush, burn, shock or otherwise cause serious injury.

These two colors, yellow and orange, are the only colors employed to denote real danger. Even color-blind persons are not confused by them. If they are used consistently, the shop worker quickly develops a consciousness of danger in their presence far more acute than any he might build up through warnings conveyed by means of printed signs.

Green, accepted as a symbol of safety for years, should be employed to distinguish first-aid cabinets, gas mask cabinets, stretchers and similar equipment.

Red, the color of fire protection

equipment, should be used exclusively for this purpose. The common error of painting dangerous parts of machines red should be avoided. Otherwise the significance of red for the purpose of identifying quickly all fire protection equipment will be impaired.

Blue is used as a warning that a machine or device has been cut down for repair and must not be operated. A blue circle hung on a valve, oven, compressor or boiler implies "Do not operate." It is also good practice to paint switch control boxes blue, as a reminder that caution should be observed in handling starting or stopping levers.

To ensure a successful safety program, good lighting and working conditions, combined with high standards of housekeeping, are necessary.

First, consider the problem of ideal seeing conditions. Seeing is one of the most vital of all human tasks. Eyestrain, in fact, may be readily looked upon as an occupational hazard.

Subject a shop worker to inadequate or insufficient light, to glare, to prolonged convergence on near objects or fine details, to distractions caused by excessive brightness and motion on the boundaries of vision, and he or she may acquire more than a bad disposition. Fatigue, nausea, physical debility, nervousness and psychological irritability are the direct results of eyestrain. Any of these conditions may lead to carelessness and thence to accidents.

Uses in the School Shop

In the school shop the intelligent use of color can improve most adverse conditions that cause eyestrain. When the pupil works with a white object on a black ground, visibility may be high but the extreme of light and dark may cause trying visual adjustments and rapid fatigue. A moderate contrast, therefore, offers the best seeing condition.

For the worker disturbed by

brightness and motion on the boundaries of his vision a shield should be erected to block out these disturbances. It should be painted a color in ideal contrast with the task and thus another seeing problem can be eased.

When particular functions are to be served involving critical seeing, the colors to be used are limited. Here, appearance is secondary to the more vital function of solving a particular problem. Workshops are no place for interior decoration.

In school workshops, soft blue-greens are desirable. They will reduce wall glare, appear cool and refreshing to the eye and encourage high standards of good housekeeping.

A Good Color Scheme

Machinery may be painted a neutral gray, with important working areas finished in a soft buff. This will highlight the vital part of the device, reflect more light and help to concentrate the interest and attention of the worker. On unimportant equipment, such as benches, racks and shelving, gray is best and will not unduly distract attention.

Let corridors and stairways be bright and sunny. The under parts of stairs should be painted white for maximum light reflection. A yellow band on the top and bottom risers will help prevent falling and stumbling accidents.

White should be considered the final color for safety. Its uses are to guide traffic, mark aisles, designate rubbish containers and storage spaces. White paint applied to corners and locations where trash is frequently tossed will have a marked effect in promoting neatness and good housekeeping.

In fact, a carefully organized painting program developed around the elements of good seeing, personal comfort and careful attention to a color code for safety automatically inspires better housekeeping and improved morale.

Fireproof Curtains of Glass

GROWING attention to color as applied to school interiors raises the question of their complementary furnishings, particularly fabrics.

"But we don't go in for fabrics to any great extent," the schoolman states. "Not that we wouldn't like to, but they're not practical. Take window hangings, for example. I know they help a room, but we've got to think about maintenance. And then there are fire hazards, always fire hazards."

Through the long years of war the schoolman and others responsible for institutional management read and heard of the wonder-world that would be theirs, once normal times returned.

Even before the war, it was recognized that a fabric suitable for window hangings or upholstery could be attractive in color, design and texture and at the same time be sunproof, dustproof, mothproof, insectproof and washable. Some of these materials were treated with a fire retardant process. All this denoted great progress in developing fabrics suited to institutional use.

At the same time there was evidence of new developments that one day might revolutionize our conceptions of fabrics. Curtain and upholstery material of tomorrow, we were told, would be woven of glass which would assure all the desirable properties described and, in addition, would be actually fireproof.

War needs speeded the experimental process. Curtains spun of extruded glass thread were tried out by the navy and found acceptable. Various refinements were made and new processes developed by which drapery materials composed of these inorganic yarns could be produced in a variety of patterns as well as in plain materials.

Enthusiastic reports regarding this new type of material come from school officials who have tried it for proscenium arch curtains, cyclorama curtains and backdrops for their auditoriums as well as for curtains in other rooms. As already explained, the fabric is woven of extruded glass thread, the speed of the extrusion creating softness in texture.

Formerly the material was dyed in the piece which tended to make it somewhat stiff and unwashable. Now it is dyed in the yard making it possible to wash it as well as dry-clean it. Perhaps its greatest advantage for schools lies in the fact that it is inherently noninflammable. Whereas the original cost is about one third more than that of the combustible material now in general use, the added expense has been found to be more than balanced by the annual flame proofing exacted by many fire departments.

Therefore, add to the fabrics which have been designed to meet the requirements of institutional use one more, glass fabrics, and to their qualifications, complete fire protection.



An interesting variety of patterns is available.

Current Decisions on School Law

M. M. CHAMBERS

American Council on Education

"Released Time" Is Lawful

Ruling: *The resolution of 1929 of the Chicago board of education, authorizing public school pupils to be excused, at the request of their parents, for one hour each week to attend religious education classes at the churches of their choice, does not violate either the federal or state constitutions.* People ex rel. Latimer et al. v. Board of Education of City of Chicago, (Ill.), 68 N. E. 2d 305 (1946).

Case: Current records show that out of 249,614 pupils, some 22,500 are excused to go for religious instruction to 137 parochial schools and 57 Protestant churches, a majority of those so excused being Catholics. Against the argument for a writ of mandamus to discontinue the practice, the Illinois supreme court spoke with eloquent tolerance and reason as follows:

"We concede that the board of education should not help sustain or support any school controlled by a church or sectarian denomination or aid any church or sectarian purpose. On the other hand, we do not deem it the duty of a school board to be hostile or antagonistic to religion or churches, nor should it interfere with the free exercise and enjoyment of religious freedom."

Mr. Justice Fulton continued: "The school authorities in Illinois and in every jurisdiction in the United States have always been vested with discretionary power to determine what constitutes a sufficient excuse for absence from school and the courts should not interfere with or attempt to control the exercise of such power, unless it has been substantially abused. The regulation complained of does not do violence to the compulsory attendance law and in our judgment is a reasonable rule for the practical administration of schools."

Comment: Let school boards take the rôle of guardians of freedom, not that of repressors!

Night Football Not Nuisance

Ruling: *Home owners in the vicinity of a high school stadium cannot be granted an injunction to prevent the erection of lighting equipment for the stadium and its contemplated use for night football games, merely on the assumption it may become a nuisance.* Board of Education of Louisville v. Klein, (Ky.), 197 S. W. 2d 427 (1946).

Case: The stadium is of long standing and the complainants had moved into the neighborhood since it was erected. One private residence nearby had approximately doubled in value since 1924, despite its proximity to the stadium. A zoning ordinance permitting high schools must be presumed to permit a stadium. "Night football may become unreasonable and intolerable to the average householder," so that conceivably an injunction may become necessary in the future.

Comment: The decision makes it clear that the board of education's responsibility is to arrange for police protection adequate to assure the quiet and orderly handling of crowds of spectators, if and when they are attracted.

Tort Responsibility in New York State

Ruling: *In any suit in tort it is necessary to prove negligence and also to prove that the negligence was the proximate cause of the injury. Thus, the school district was not liable where a pupil was struck in the eye by a stone unpredictably batted by another pupil on the playground, while the principal who regularly supervised the playground*

was absent for a few minutes to answer the telephone. Wilber v. City of Binghamton et al., (App. Div.), 66 N. Y. S. 2d 250 (1946).

Case: The circumstances were such that the injury might as easily have been inflicted if the principal had been present at the moment for there was no evidence as to how long stones were batted and the possible length of time was extremely short. Therefore, the negligence, if any, was not proved to be the immediate cause of the injury.

It would be difficult, moreover, to maintain that the school district was negligent in not providing another supervisor during the few minutes when the regular supervisor was called to the telephone. Decision was by vote of three judges against two.

Comment: The case affords another example of the need for a statewide system of accident insurance to cover pupils, similar in principle to workmen's compensation laws.

School Board Can Accept Lawsuit as Gift

Ruling: *When an heir-at-law of a deceased resident of a New Hampshire school district, having a right to sue to set aside deeds made by the decedent shortly before her death, assigns his rights to the school district, the district may accept the assignment and proceed with the necessary litigation.* Ladd v. Higgins, (N. H.), 50 A. 2d 89 (1946).

Case: The decedent conveyed her farm to a third party, cutting off her brother, who resided in another state. Apparently there was a credible chance of having the deeds set aside on the ground of undue influence. The brother, living at a distance and having no money to spend on litigation, transferred his rights to the school district. One of the arguments

was that the farm would not be a suitable species of property for the school board to acquire. The New Hampshire supreme court said that this "is not a compelled conclusion as a matter of law. Vocational education and practical instruction may be a legitimate part of an educational program."

Comment: This is believed to be the first case of its kind ever to reach a high court. The decision recognizes both the corporate vitality of the school district and a broad conception of the functions of the public school.

Publishing School Expenditures in Utah

Ruling: *A statute in Utah requires publication of an annual statement by each city or county school district showing monies paid out, for what paid and, in county school districts, to whom paid. This is not complied with by a county school district publishing several headings, such as "general control," "instruction" and so on, each followed by a long list of names and by figures showing only the total of expenditures under that heading.* Conover v. Board of Education of Nebo School District, (Utah), 175 P. 2d 209 (1946).

Case: The board was compelled by mandamus to publish an itemized list of expenditures. The distinction between county and city school districts in the statute is reasonable and not unconstitutional, in the opinion of the court.

Comment: There is probably no fully valid reason for withholding publication of detailed expenditures, all of which are matters of public record accessible to determined citizens on the books of the board. Full disclosure of all details goes far to remedy the popular misconception that public administration is necessarily shot through with crafty chicanery.

The Shame of 1932

Ruling: *The city of Detroit, as fiscal agent for the board of education, must pay \$124,018.79 arrearage in salaries, with interest, to certain teachers who were compelled to make a "voluntary" contribution of some 42 per cent of their salaries for May and June 1932 in order to keep the schools in operation during those two months. The fact that the teach-*

ers endorsed the "short change" checks, waiving any right to sue, was totally ineffective to bar further action because the claims were certain in amount and undisputed and in these circumstances there can be no release by accord and satisfaction. Thal v. City of Detroit, (Mich.), 25 N. W. 2d 215 (1946).

Case: Ninety-eight per cent of the delinquent taxes of 1932 had been collected by the middle of 1943. As to the necessity of a demand for payment to start the accrual of interest on these claims of the teachers, the court said, "These people could have demanded from the house tops every day for five years and they would have received nothing. Under those circumstances a demand is useless, futile and idle and is not required."

Comment: The decision is sound law, clean justice and good common sense. Many of the expedients of 15 years ago now appear in a light both comic and acutely pathetic.

Local Pensions and Social Security

Ruling: *There is no conflict or overlapping between an Iowa act of 1917, under which several cities are operating local teachers' pension and annuity retirement systems, and the*

Iowa statute of 1945 establishing an old-age and survivors' insurance system for the public employes of the state and its instrumentalities, including school districts. A school district may participate in both systems concurrently. Independent School District of Cedar Rapids et al. v. Iowa Employment Security Commission et al., (Ia.), 25 N. W. 2d 491 (1946).

Case: There are material differences between the two plans, but neither necessarily interferes with the other. The court describes the 1945 act as "a cooperative legislative effort by state and national governments for carrying out a public purpose common to both, which neither could fully achieve without the cooperation of the other." The act is closely patterned after Title II of the federal Social Security Act which does not cover public employes.

Comment: Public employes, employes of nonprofit institutions, farm laborers and household workers are not covered by the old-age and survivors' insurance feature of the federal Social Security Act. Relatively little has been accomplished on the matter for twelve years. A state act for public employes is an approach to one part of a highly complex problem.

Curriculum Consultant Service

H. L. CASWELL

Professor of Education, Teachers College, Columbia University

ALTHOUGH institutions of higher learning have rendered a great deal of consultant service to school systems on curriculum problems during the last twenty-five years, the function has seldom been clearly defined, the activities of staff members often being either on a personal basis or in the form of extension teaching.

If the most effective development of the programs of institutions of higher learning in this connection is to be achieved and the greatest service rendered to schools, several points should receive attention:

1. The provision of consultant service should be mutually advantageous.

Abstract of an address given before the A.A.S.A. convention, 1947.

2. Consultant service requires special competence on the part of consultants. It is especially important to be able to guide group processes.

3. Consultant service should be provided and used so as to obtain the help of a variety of specialists in developing a curriculum having unity and consistency.

4. The service must relate to the curriculum problems in the specific school situation.

5. Consultant service should never take the place of local leadership on the curriculum but should seek rather to cultivate and strengthen it.

6. If the number of schools seeking consultant service should increase appreciably, the staffs of the institutions of higher learning would have to be increased greatly.

Chalk Dust

MAY

IN A number of states, the month of May is designated as the time for the annual school meeting when patrons of the school are summoned to elect trustees, to cuss and discuss the budget and transact such other business as may need attention.

Some school folk look with dread upon this annual overhauling while others boast that the affairs of their district are so well managed that there won't be more than a corporal's guard in attendance.

If this latter be true, my dear superintendent, you have failed in your duty to the school and in your conception of education in a democracy.

This annual meeting of the people, this grassroots administration of the school, this trusteeship of an American heritage is a precious thing to be encouraged and cherished and safeguarded. There is nothing like it in all the world—a free people meeting together as friendly neighbors to evaluate that which has made and kept them free.

The annual school meeting is democracy at work. It is America in action. It is a free people conscious of their freedom and as such it should be held high among the privileges in which a school administrator is allowed to participate.

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Failure of a Mission

AS A general rule, The NATION'S SCHOOLS provides most constructive and helpful reading for its thousands of readers from coast to coast (adv.) but fie upon it for an article published a few months ago.

We refer sorrowfully to that seemingly innocent little article on how to catch pigeons.* "Pigeons," says the author, in what is a masterly understatement, "are second only to flies and other insects as a general nuisance." He then proceeds to tell us how to trap them and otherwise upset their home life.

"Here," thought we, "is a worthwhile activity for a superintendent of schools. The pigeons on our glass, alas, whose billings and cooings disrupt the school, whose love life is a constant curiosity to the biology students, whose other antisocial habits leave much to be desired, let them perish!

Quickly we seized the blueprint which the author had thoughtfully provided and with large help from the industrial arts department, we constructed a

*Traps Reduce Pigeon Population, by Hal G. Perrin, The NATION'S SCHOOLS 38:62 (December) 1946.

pigeon trap. This is what then happened: 1. Mrs. Fannytiddle called to inquire if we did not have anything better to teach Robert Fannytiddle than the making of pigeon traps. He hammered his finger and "you" (meaning us) "had better tend to your knitting and leave the dear little pigeons alone." 2. The local newspaper published a derogatory article proving that we had attempted to solve the high cost of living by substituting pigeon pie for roast beef. 3. The faculty drew up a strong protest stating that their curriculum on Kindness to Animals had been completely nullified by our brutish actions.

4. The taxpayers' association passed a resolution demanding an investigation as to the amount of profit we had cleared in the unauthorized sale of caught pigeons. The resolution further pointed out that pigeons are part of the public domain and that public office is a public trust. 5. The Society for the Prevention of Cruelty to Pigeons served a warrant on us for cruel and inhuman detention of pigeons against their will. 6. Not a single pigeon entered the trap.

This report is made to readers of The NATION'S SCHOOLS in no spirit of criticism or fault finding. We still think that pigeons are Public Enemy No. 1 and that they are of no economic value except to the hat cleaning establishments. Presumably the author of the article wanted to be helpful and that we appreciate.

All we can now say is that probably he was never superintendent of schools in a small town and, for his sake, we hope he never is.

« »

BALLAD TO BOOKMEN

*When April steps aside for May,
Like diamonds all the raindrops glisten;
Fresh violets open every day,
To some new bird each hour we listen.*

—LARCOM

*Or maybe listen half a day;
With siren songs at last we're caught,
And when that danged bird flits away,
My gosh, look what we have bought!*

Frederick J. Morris

More Team Play Among Teachers

A GREAT deal of teaching effort is being dissipated because teachers are not working unitedly to attain common objectives. This is no criticism of teachers' industry; it is rather a criticism of school organization and management.

Educational accomplishment is not the sum total of the individual efforts of the teachers; it is the result of combined, integrated effort on the part of all of the teachers working together to attain common objectives.

A typical high school situation finds little horizontal integration in the teaching of various subjects. The English teacher goes her own way, endeavoring to the best of her ability to accomplish certain objectives she has set up for the year. The history teacher plans her work, hoping to cover the units laid out for the year's program. Each other teacher works on independently. There have been no pooling of interests, no common planning, no agreement as to what the sum total of the year's work should be. There has been little joint consideration of what the total impact on Joe Student should be.

Each Teacher Has Own Goal

Each instructor has decided what English Joe shall be exposed to, what history he shall be expected to learn, what mathematical skills he shall acquire. But the faculty has not jointly decided what the common effect of all its teaching shall be, what end product shall materialize, in short, what changes shall take place in Joe as a human being.

It may have been hoped that somehow out of the various impingements on Joe of bits of literature, history and mathematics something worthwhile would happen to him, but there just wasn't any evidence of team play among his teachers. No one had pictured the Joe-to-be at the end of the year or at the end of high school. No one had planned just what Joe was to be or how he was to get that way.

Some plans have been suggested for bringing about the desired unity

W. H. McFARLAND

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of action. Core curriculums, fused curriculums, experience curriculums and others have been designed to realize this needed and desired unification. They all call for a new type of curriculum organization, a type of organization which is new to most high school teachers.

Teachers, schooled as subject matter instructors, lacking the right kind of training to provide broad backgrounds, find it difficult to get outside their subject matter fields and fuse the related materials into broader fields. Their own experiences as pupils in high school, their study of subject courses in college, their professional training in college methods courses have all combined to fit them into a groove as special subject teachers.

What can be done about it? Shall the broad field curriculum be adopted and teachers told to come all the way and get themselves attuned as best they can to the new demands upon them? Can they make the switch immediately without too much fumbling of effort? Probably not. Well, shall Mahomet then move to the mountain? Shall we just await a new generation of teachers who have been trained to do this job? Or shall we compromise? Compromise seems to be best.

It is entirely possible to gain at least many of the advantages of the fused curriculum and the broad field curriculum by bringing about horizontal integration under the present curriculum organization. This can be done with teachers remaining in their subject matter fields. They will need, of course, to broaden their horizons, to see their jobs in new perspectives, to gain a new vision of their responsibilities but the old landmarks of familiar subject materials will still be there. The road will be improved, but it will not be entirely new. Now English and history and

mathematics will be working together to serve the needs of the whole Joe Student.

Just how can that be done? The answer isn't simple and the result cannot be accomplished by resolution. It will take some planning and some definite action. The first responsibility rests with the superintendent or principal, whichever is directly responsible for the school's curriculum organization and management.

School's Philosophy Comes First

He should call the teachers together for the purpose of setting up the school's philosophy, aims and purposes. The entire corps, including administrators, supervisors and teachers, should decide what the philosophy shall be and, in the light of its decision, formulate the aims, objectives and the direction of the whole high school program. Several meetings will be needed and the literature on the subject will need to be carefully studied.

Let us assume that it is decided to adopt the objectives formulated by the Educational Policies Commission in 1938. Broadly, then, the aim will be to attain objectives of (1) self realization, (2) human relationship, (3) economic efficiency, (4) civic responsibility. What can the whole school organization do to facilitate these objectives? What contributions can the so-called "extracurricular program" make? What can each subject contribute?

Each teacher should study the potentialities of her subject for its possible contributions. What can I do in American history to cultivate a sympathetic attitude toward minority groups? What can I do in English literature to improve family relationships? What can I do in geometry to improve reading skills? The possibilities are as unlimited as the teacher's imagination and industry.

And then the teachers should meet frequently to explore possibilities for coordinated effort. There are limitless ways in which they can supple-

ment and reinforce one another's labors. Each will need to understand what the others are attempting to do. What algebra will be needed in physics? How can the mathematics teacher aid with a remedial reading program? How can the coach teach lessons in ethics? What can the music teacher do toward the appreciation of literature?

In the final analysis, there will be

no teachers who teach only one subject—physical education, English, citizenship, history, shop or mathematics. Every teacher will still teach her special subject, but every teacher will also be an English teacher, a teacher of health, a teacher of citizenship; in short, a teacher of youth.

There will be less shooting in the dark. Many of the advantages of more radical curriculum organiza-

tions will be realized with teachers still working in their old fields. They will need to be more resourceful teachers. They will have to expand beyond the traditional limits of their old subject fields and their old class procedures, but they can do it.

Their work will be easier for doing it; the school's responsibility to youth will be more nearly fulfilled, and Joe Student will welcome the change.

Sunrise in Religious Education

Book Review by

CONRAD HENRY MOEHLMAN

AFTER more than thirty years' experience with the theory and practice of religious education, Ernest J. Chave, professor of religious education in the divinity school of the University of Chicago, has written the definitive book* for "a new day in religious education."

His courageous analysis and criticism of what has passed as religious education and his appeal for its reconstruction on the basis of a functional and naturalistic approach to the problem pave the way for cooperation between public education and this kind of objective and realistic religious education. Indirectly, it is the strongest apology for public education yet penned. Any public school administrator who masters this volume will be able to answer adequately all criticism of the public schools as "godless."

The author's appreciation of the public school is highly gratifying. For example, "very little race or class consciousness is shown in the younger grades, but outside influences soon creep in and youngsters reflect attitudes of older people"; "though churches have tended to condemn dancing, more intelligent and liberal attitudes are becoming prevalent"; "the public school offers children and young people more opportunities for cooperative thinking and acting than any other organization. . . . It democratically binds people together without respect for

class, creed, race or nationality difference."

Prof. Chave does not support the released time adventure. Its weaknesses and shortcomings are: sectarianism, "dividing a community and destroying the united democratic spirit of the public school"; assumption that tolerant sects teach equally good religion; suppression of minority rights by majorities; the refusal to evaluate religious teachings critically; the failure to recognize the functional characteristics of religion; the assumption that "physical proximity to general education will integrate religious ideas and values," and "a false interpretation of religion as something which can be added to general education by a one hour a week program, failing to lift out the spiritual elements which pervade all good teaching."

The reconstruction in religious education Prof. Chave pleads for is based upon this definition of religion, "the persistent outreach on the part of man for meanings and values to inspire and guide him in his restless search for a fuller and more satisfying life," and upon a functional analysis of religion as well.

Its 10 categories are: sense of worth, social sensitivity, appreciation of the universe, discrimination and values, responsibility and accountability, cooperative fellowship, quest for truth and realization of values, integration of experiences into a working philosophy of life, appreciation of historical continuity and participation in group celebrations.

Each of these is discussed at length; together, they constitute the author's contribution to the new understanding of religious education.

The defense of a naturalistic view of religion in these pages is easily the best we have read by a professor of religious education. The critical developments are: (1) "the primary need is a growing faith in the spiritual resources of our natural world"; (2) the "recognition of the pervasive and identifiable nature of religion"; (3) "an increasing knowledge of psychology and critical methods of thought"; (4) historical perspective; (5) the varieties of ways in which religion is discovered and expressed; (6) sensitivity of parents, teachers, leaders to all religious values in our common life; (7) use of best techniques and materials; (8) use of not only the Bible but historical and current literature; (9) destruction of sectarian and divisive interests through expansion of cooperative enterprises; (10) increasing appeal of the liberal progressive spirit of religious education as sectarianism and supernaturalism yield to the emerging scientific view of life.

The new age is on the side of liberals and progressives for it needs "an institution which is free from the state and free from hierarchic controls which can invite free interaction of minds and critical, constructive attitudes and programs."

To demonstrate how practical his suggestions are, Chave adds an experimental curriculum already tested out in various Sunday schools.

*A Functional Approach to Religious Education, by Ernest J. Chave, The University of Chicago Press, 1947. IX + 168 pp., \$2.50.

NAMES *in the* NEWS

Superintendents



Willard B. Spalding

Willard B. Spalding, superintendent of schools in Portland, Ore., will be dean of the college of education of the University of Illinois, effective June 1. Dr. Spalding recently won nationwide attention in press and radio by his teacher recruitment campaign in Massachusetts. High salaries and Portland's temperate climate were his baits; well trained teachers, his catch.

J. W. Harbison, superintendent of schools at Pinehurst, N. C., operates a chinchilla ranch as a hobby, in a lean-to garage adjoining his home. The animals weigh from 20 to 26 ounces and are difficult to raise in captivity. It takes about 300 pelts to make a fur coat, costing from \$12,000 up. A good breeding pair of chinchillas sells for from \$1200 to \$1600. Mr. Harbison's original seven pair have now increased to 21 animals.

Max S. Smith has been elected to the superintendency at Niles, Mich. Prior to this appointment, he served as superintendent of schools at North Muskegon, Mich.

Leland R. Armstrong, assistant superintendent at Wichita, Kan., has resigned his position effective August 1 and will enter Teachers College, Columbia University, in September to begin work on his doctor's degree.

Paul C. Fawley, superintendent of schools at Powell, Wyo., for the last twelve years, is leaving his position to do graduate work at Indiana University.

Harland L. R. Paschal was reelected superintendent of schools at Fort Madison, Iowa, for a three year term, his salary starting at \$5000 a year. Teachers and principals at Fort Madison were reelected with an average salary increase of \$630 for 1947-48.

Franklyn S. Barry, superintendent of schools at Irondequoit, N. Y., has been made superintendent at Cortland, N. Y.

Richard A. Jensen is now superintendent at North Tonawanda, N. Y.

Principals

O. H. Schaaf, high school principal at Lancaster, Ohio, has been appointed principal of Garfield Heights High School in Cleveland for a three year term effective April 14. He succeeds **Mary H. Kerr**, principal for the last sixteen years, who requested that she be transferred to the department of pupil personnel where she is now in charge of supervising and integrating the guidance program for the entire school system.

Katherine G. Danahy, principal of North Agawam School, Springfield, Mass., will retire in June. **Mary Lynch**, teacher in the Agawam Junior High School, will succeed her. Miss Danahy began service in the Agawam schools in 1899.

Lynn Miller, principal of Jefferson High School, Indianapolis, has been appointed acting superintendent of schools at Lafayette, Ind., succeeding the late **Morris McCarty**.

David I. Davoren, principal of Milford High School, Milford, Mass., has been appointed superintendent of schools. **Joseph J. Tosches**, member of the high school faculty, will succeed him as principal.

The school board of Newark, N. J., has appointed four new high school principals and three elementary school principals as follows: **Roger B. Saylor**, Barringer High School; **Frederick C. Seamster**, Arts High School; **Francis B. Snavelly**, West Side High School; **Henry A. McCracken**, Central High School; **Paul A. Hochstuhl**, Camden Street School; **Marion S. Smith**, South Tenth Street and Waverly Avenue School; **Robert M. Coleman**, Webster Street and Burnet Street School.

James M. Lynch has been named principal of the Alfred Vail Junior High School at Morristown, N. J., succeeding **Peter Van Reen** who was relieved of administrative duties at his own request and has returned to teaching in his field of science.

Rex K. John, principal of Wilson Junior High School at Manitowoc, Wis., has been named principal of Lincoln High School succeeding **C. G. Stangel** who will resign in September after thirty-two years as head of the school.

Frank Bugar, Ithaca, N. Y., has been appointed principal of the New Paltz

High School at New Paltz, N. Y., effective July 1. He is at present studying for his doctorate at Syracuse University. He was previously supervising principal at Eden, N. Y.

Elmo Flannery, principal of Keystone School at Johnson City, Tenn., resigned April 6. Mr. Flannery stated that conditions were so unsatisfactory he did not feel justified in continuing longer, his reference being to low pay for teachers and overcrowding. Mr. Flannery is said to have made great effort to improve salary standards but was able to accomplish little.

James O. Linn, vice principal of Woodland High School, Yolo County, California, has been appointed principal of Needham School and director of curriculum of the elementary schools at Lodi, Calif.

J. J. Cordell, principal of Griffin High School at Albany, Ga., has been elected assistant superintendent of the Albany schools. The position is a newly created one.

E. Allison Grant, principal of Friends Academy at New Bedford, Mass., has submitted his resignation effective the end of the current school year to accept a position in a New York school.

C. Howard McCorkle, for the last three years principal of Science Hill High School, Johnson City, Tenn., will become dean of Milligan College July 1.

Paul A. Stewart, supervising principal of the Second Avenue building of the Junior High School at Clearfield, Pa., has been made principal of the school succeeding **E. A. Andrew** who has resigned to accept a position with the Deposit National Bank.

William S. Twichell, supervising principal of schools in Hopewell Township, Pennington, N. J., has been made supervising principal of the schools of Ramsey, N. J.

Andrew C. Estock, principal of the high school at Rockaway, N. J., will resign effective June 30.

Wallace J. Bronner, principal of the Syracuse Adult Evening High School, Syracuse, N. Y., is now principal of Charles Andrews School.

Clarence Zimmerman, principal of Yakima Senior High School, Yakima, Wash., has been elected superintendent of the Highland consolidated school district.

(Continued on Page 94)

AUDIO-VISUAL AIDS



Display Case Proves Helpful

A LARGE centrally located display case can be used successfully in a school's visual education program. This is illustrated in the lobby of the main entrance to the La Porte High School, La Porte, Ind., a high school with an enrollment of 1000 pupils in which a rather dim and dismal wall near the main

HENRY W. SCHULZE

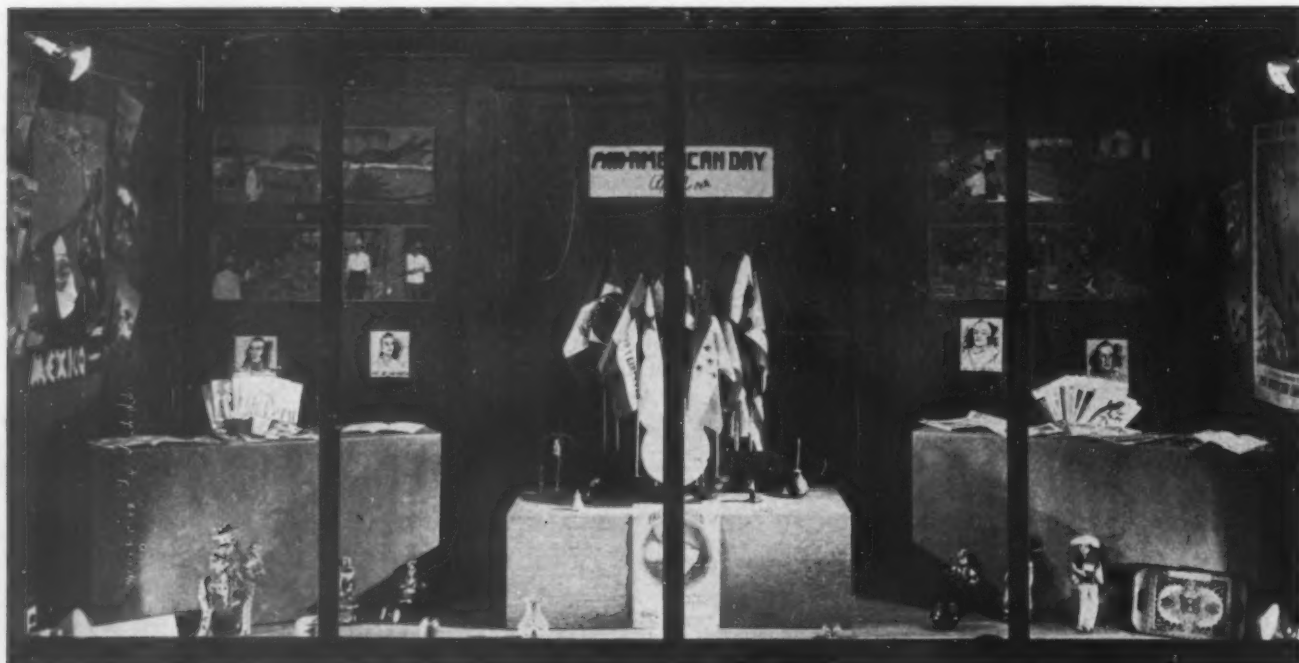
Director, Audio-Visual Education
Public Schools, La Porte, Ind.

entrance was recently transformed into an effective display area.

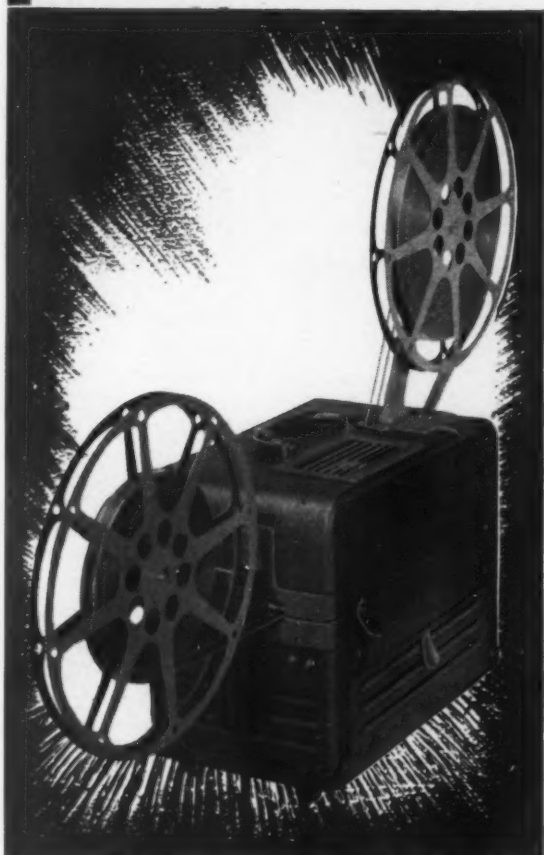
This display case was designed and constructed by members of the staff of the industrial arts department. It is approximately 15 feet

long, 6½ feet high and 5 feet deep. The front is of plate glass divided into panels so that in case of breakage, only one panel need be replaced. The top, back and end members also are of panel construction.

A double opening in the rear approximately 5 feet wide provides access for entering and for arranging



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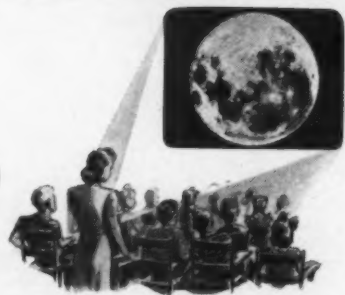
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large items to be put on display. Lighting is provided by means of tubular fluorescent lamps across the inside top front. Also at the front, in each of the top and lower corners, an outlet is provided to receive a swivel type of socket for a 150 watt reflector type of spotlight. Base outlets are included at either end of the case. A row of switches on the outside rear panel provides for independent control of the tubular lights, the upper and lower spotlights and wall outlets.

This display case is now in its second successful year of operation. Many effective displays have been arranged under the direction of the audio-visual education department.

The displays that have been exhibited have been derived not only from activities in the school but also from activities and organizations in the community. They have centered around the theme of guidance, curricular activities and the industries and professions of the community.

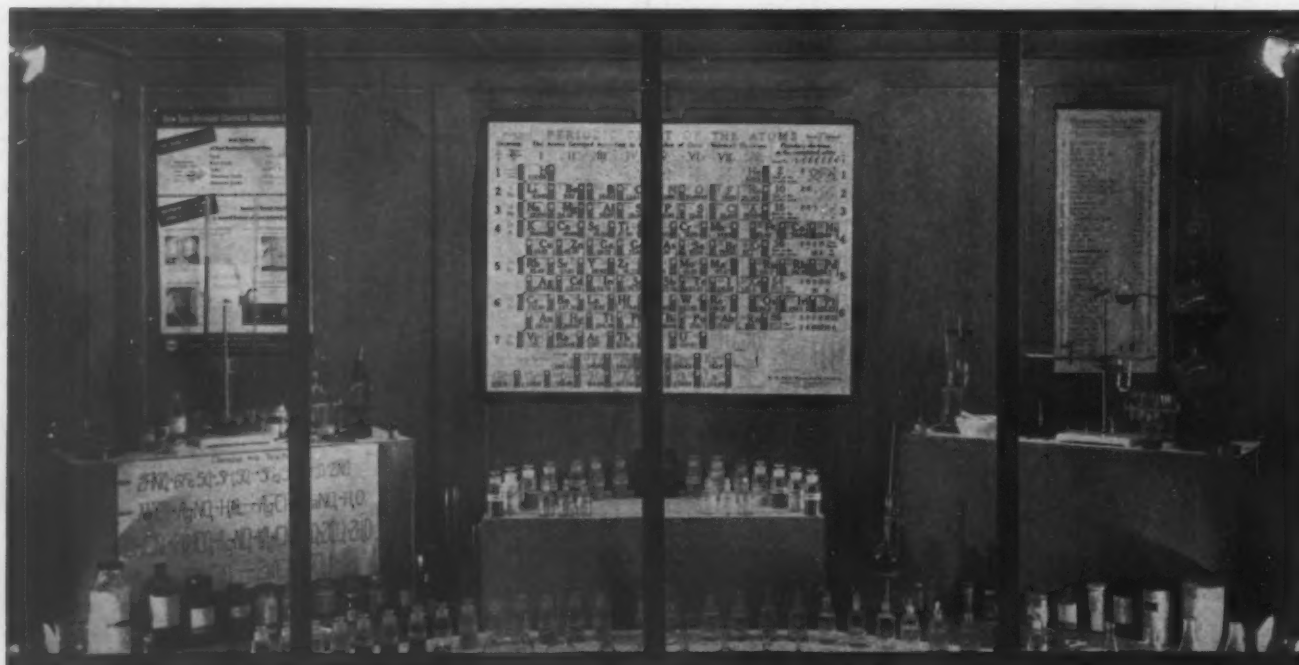
Titles of some of the various exhibits displayed are as follows: Growth of Literature in America; Toward Democracy and Culture; Pan American Week; Chemistry; Mathematics and Its Relation to Life; Industrial Arts Projects; the United Nations; How the School Paper Is Edited and Produced.

Some interesting displays prepared and exhibited by out of school agen-

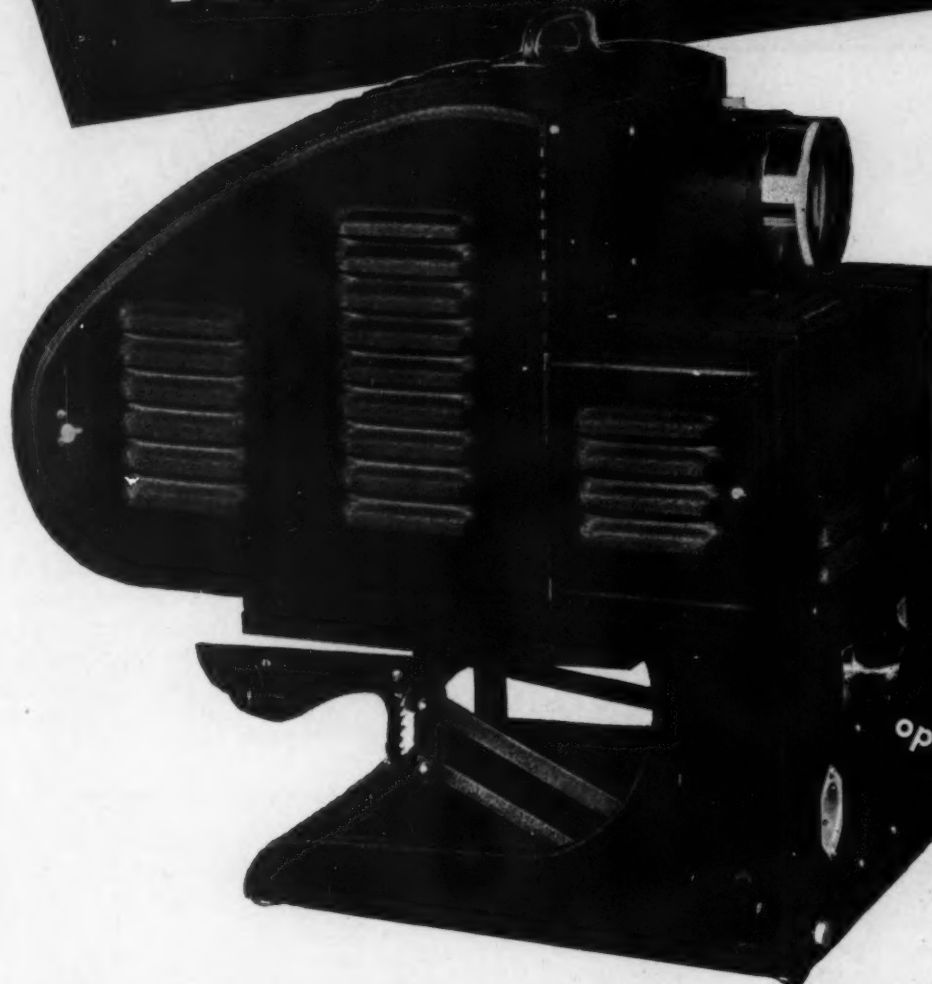
cies are: fire prevention week; American Red Cross; industrial safety by the Chamber of Commerce; a dental display by the local dental assistants' association, and the printing and binding of books.

The design and preparation of the curricular exhibits made by the pupils and faculty provide for creative expression. The creative work in making a display utilizes the artistic talents of the persons making the materials and arrangements. Composition, color and design, all enter into its construction. Competition among various exhibitors runs high.

From the standpoint of public relations, too, the display case is valuable. Visitors see it on entering.



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PLANT OPERATION & MAINTENANCE

Boiler Rooms Benefit From Color

F. W. FROSTIC

Superintendent, Wyandotte, Mich.

THE boiler room with its mechanical equipment is often the most neglected part of the school plant. Building entrances, corridors, offices and classrooms may be attractively designed and decorated but the paint supply usually runs out before the painter reaches the operating center.

A casual observation of space allotment, design and equipment of the operating areas of school plants often reveals much to be desired in these facilities. I visited a new school located in an exclusive residential section of a Great Lakes city a few years ago. The residences of the area were attractive, well designed and indicative of the wealth of their occupants. In keeping with the architectural treatment of the homes, the school plant had been well designed as a single story building with attractive grounds and appropriate landscape treatment.

Lo, the Poor Boiler Room

What a difference when I went into the boiler and machine room! It appeared as though the appropriation had run out at the boiler room door. The whole operating center was characterized by inadequacy of design and equipment and by neglect in the care of machinery and rooms. A lone fireman stood in a coal bunker vainly trying to throw a week's accumulation of ashes through a manhole in the roof with a shovel. This was the only way provided to remove the ashes.

Boiler rooms are often badly lighted, ill kept, dirty and inefficiently operated. When 30 to 35 per cent of the total cost of the plant, especially in the colder sections of the country, is spent in building and equipping the operating center, it is not unreasonable to ask that this part of the plant have a fair share of the

budget maintenance appropriation.

Recent developments in the scientific use of color in the instructional areas of school buildings have paid large dividends in the increased efficiency and improved morale of pupils and teachers. Several paint firms have spent considerable time and money in developing suitable paints and color combinations that are not only interesting and attractive but productive of higher instructional efficiency.

One of the most interesting phases of this movement toward better color designing is the treatment of the modern machine shop. Instead of being painted a drab battleship gray or black, machines now appear in attractive greens or duotone colors. Electrical switches and control boxes are painted a brilliant color. Walls, ceilings and floors are treated in artistic tones to harmonize with the equipment. The whole shop takes on an interesting variation in color, relieving eye fatigue, stimulating interest and contributing to safety in machine operation.

A few schools have recognized the possibilities in treating the expensive equipment of the operating plant in the same manner. Danger points in machinery are clearly signal marked, thus contributing to the safety of

employees. Proper colors and types of paint are selected for moving machinery, boilers, pipe lines, tanks and air ducts.

For boiler insulation covering, a heat resisting aluminum is usually found most attractive and efficient. Hot metal parts and brick work can be treated with a high grade heat resisting asphalt base product in black or tile red. Hot water, cold water, steam and return lines, air pressure, heat control lines and conduits are painted or marked according to a selected code for easy identification.

Color for Valves Aids Employees

All the valves, for example, which must be kept open around the pool filter system are painted one color while those which must be kept closed during operating periods are painted another. Such code systems contribute greatly to increased plant operating efficiency and make employees feel sure that they are doing the right thing as directed.

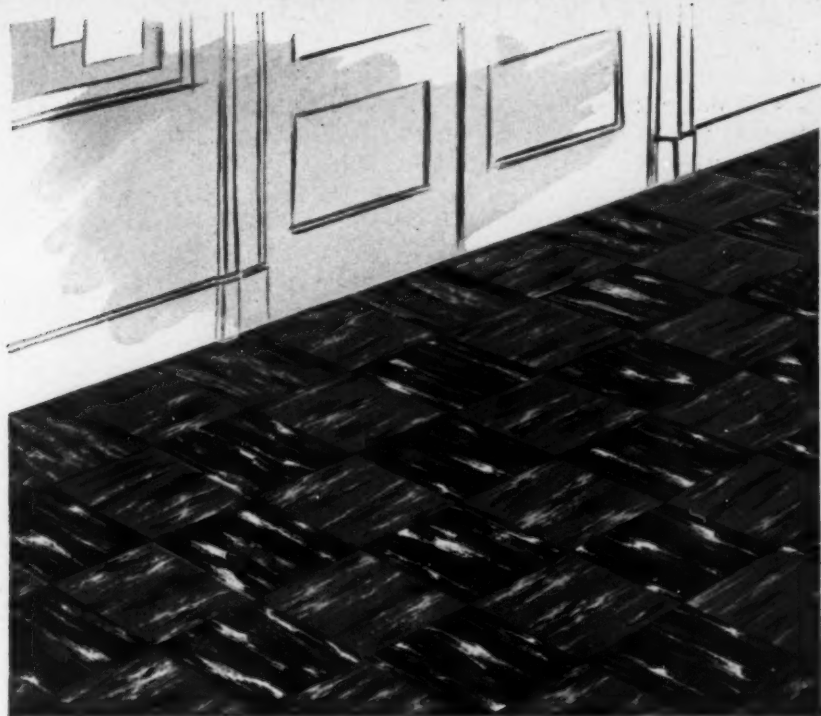
Machinery, tanks and other equipment can be painted in attractive metal paint colors; this makes the whole operating center interesting to employees and other members of the school organization. Walls, hand rails, walks and floors should receive a like share of attention in planning the color scheme. With proper lighting, natural and artificial, the place can be made a center which will contribute efficiently to the whole school plant program.

The first step in a gradual improvement program is to lay out a complete plan of colors and paint materials. Expert help can easily be obtained from paint companies, if desired. The first job is to give the concrete floor a proper painting. Much of the dust and dirt around operating rooms results from insani-





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tary and badly kept floors. A good grade of floor enamel will do wonders to the room. Don't be afraid of color. Follow this with the painting of machinery and other equipment. Finally, there are the walls and ceilings. Walls can be sprayed with a paint which can easily be washed down and kept like new.

The practice of frequently washing the whole area down with a hose is essential to cleanliness and the sanitary operation of the school plant. After employees see the results of

proper care and it becomes a part of the regular routine, they will not willingly go back to the old practices of dirty, insanitary operative procedures.

Fix up one boiler room as it should be done and note the change in the attitude and efficiency of the personnel. Fix up one boiler room and the operating employees of all the other buildings will make a beaten path to your door. They will like it. It will give them a feeling that their job is worth while, that what they do

every day actually is an important part of the whole instructional program. This morale will rise to a higher level, neglect will disappear and the quantity and quality of their work will improve remarkably.

Such treatment as is suggested here will improve greatly the sanitary condition of the entire school plant and will reduce cleaning expenditures in various parts of the plant by getting rid of much of the dirt before it is distributed through the building from the heating plant.

Window Glass Replacement Costs

A SCHEDULE of standard charges for clear window glass replacements has been issued by the board of school directors of the city of Milwaukee to school principals for their information in determining reasonable charges to be made for broken windows.

Prior to the issuing of the schedule the school system charged the actual cost of replacement which included part or all of the craftsman's travel-

ing time, depending upon what other work he had to do at the particular building or nearby. Also, the delay in getting the actual cost to the principal was highly unsatisfactory.

The schedule reflects a change in policy, according to Samuel J. Sutherland, architect, who states: "We feel the charge to be made should be in the nature of a deterrent which need not necessarily reflect the actual

cost of replacement. (Our actual window glass replacement cost in all cases is more than the 'standard charges.')

"The use of a printed chart by the principal at the time he confers with the person responsible for window breakage has definite psychologic advantages, eliminates much needless discussion and makes it possible for the principal to impose the penalty at a propitious time."

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| | | | | N A R R O W D I M E N S I O N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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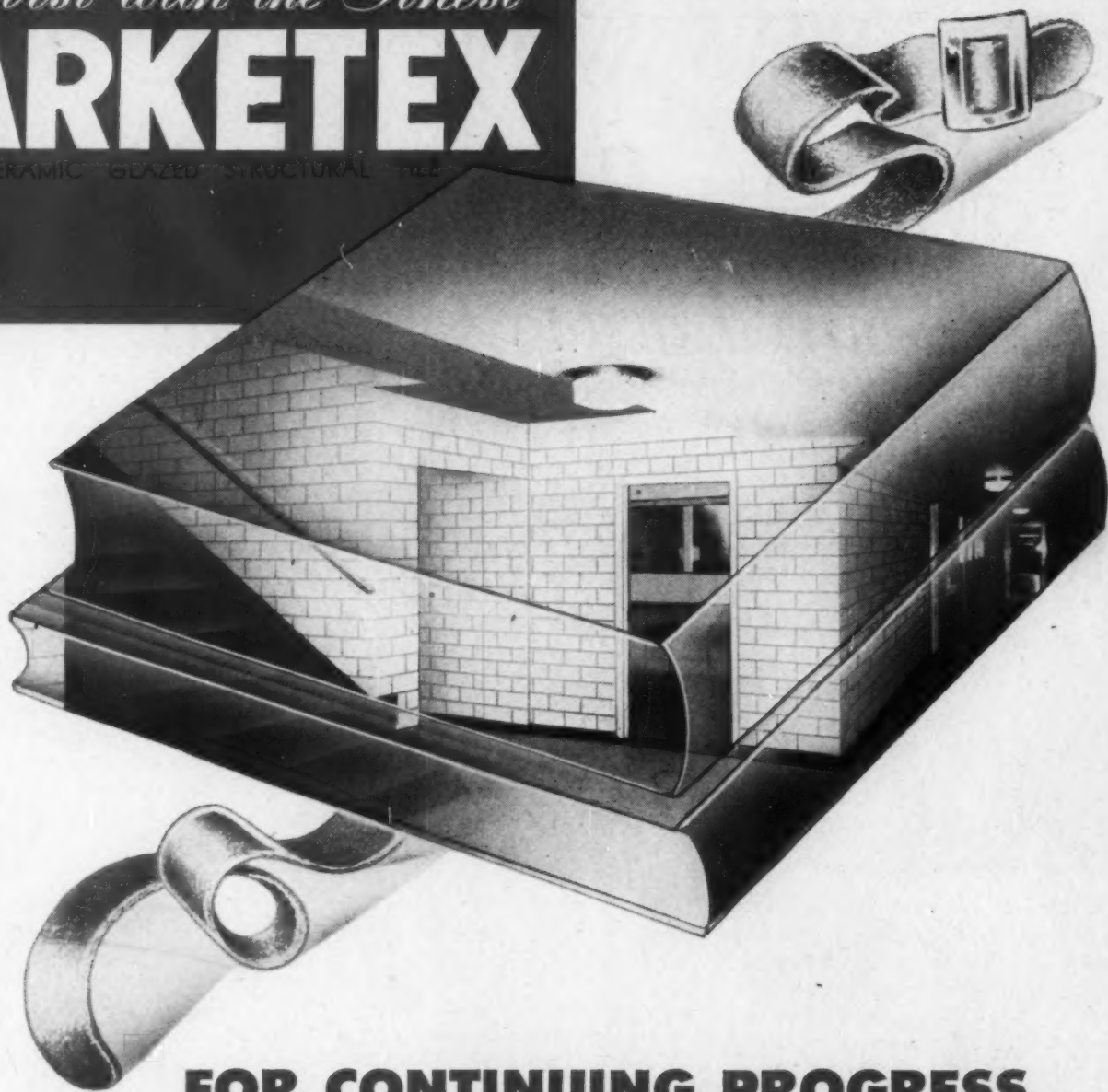
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THE SCHOOL CAFETERIA

CONDUCTED BY MARY D. GARMO BRYAN



Personnel Policies in San Diego's Cafeterias

PRIOR to 1932 the cafeterias in the San Diego city schools were operated by the student body organization of each school. The larger schools could operate very successfully and net a profit to help finance other pupil activities. The smaller schools, however, either could not have a cafeteria because of their lower volume of sales or, if an adequate program was to be had, required some subsidy from interested organizations.

Board Assumes Responsibility

In 1932 the board of education assumed responsibility for the operation of the cafeterias as a unified program. Under state laws passed in 1929, the board of education provides the buildings, the equipment and the general supervision, paying for these from the funds of the school district. All other costs are defrayed by the income from the sale of food. By establishing a unified system, the profits of the larger cafeterias where volume operation is possible can be used to meet the losses occurring in the smaller cafeterias. Thus, it is possible to operate cafeterias and provide a complete lunch program in elementary schools with enrollments of 250 pupils.

All cafeteria workers are regular employes of the school district and are governed by the same personnel policies as are other members of the school staff. Regular employes are selected through examinations of the civil service type, including, in most cases, an evaluation of a person's work in the cafeterias as an hourly

EDITH T. BETHARD

Director of Cafeterias, San Diego City
Schools, San Diego, Calif.

helper. After completing one year of successful work, the employe is granted permanent status, which gives him the right to a continuing annual appointment.

Dismissal or nonappointment is possible only on the basis of specified reasons, such as incompetence, inefficiency, insubordination and physical or mental incapacity. If the services of an employe are discontinued and if he desires, he may have a hearing of his case before an impartial appeals board. The board consists of three members, one of whom is appointed by the presiding officer of the superior court of San Diego County, one by the chairman of the civil service commission of San Diego County and one by the chairman of the civil service commission of San Diego.

A regular salary schedule has been established which gives the employe the right to four annual increments providing a total increase of approximately 30 per cent. Each position is classified on the schedule in accordance with its duties and responsibilities. Promotions are made from one classification to another on the basis

of periodic examinations, which include a review of experience in the lower classification, as well as an examination covering the added duties required in the higher classified position.

Such examinations are open to any candidate although preference is normally given to existing personnel, since persons already on the job are familiar with cafeteria policies and an evaluation of them can be more exacting than it would be for a new employe.

The salary schedule and classification structure make it possible for the cafeteria employe to know exactly what remuneration he may expect. Relatively higher salaries are paid managers and those holding other responsible positions while relatively less is paid hourly helpers than is common. This policy has led to the development of stable qualified leadership in the individual cafeterias.

Get Retirement Benefits

Cafeteria employes are included in the regular local retirement system. This system is actuarially sound. Therefore, deductions from the salary of the employe vary in accordance with his age and sex. An employe 60 years old may retire if twenty years of service has been rendered. An employe must retire at 65 years of age. Any employe, regardless of age, may retire, if disabled, after fifteen years of service. The contributions of employes are matched by the school district.

The right of cafeteria employes to



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You know the tea drinker. If he likes the tea he likes the meal—and will come back again and again. We know him, too. What's more, we know what will please him. Everything we have learned in sixty-four years as tea specialists we have put into Sherman Blend Exquisite Tea. You can serve Sherman Blend for less than a penny a cup. Do you know any other way in which a fraction of a penny can be so important?



*Good food for
pleased guests*

Sexton
Quality Foods



*Equipment used in
Hampton Institute's
All-GAS Kitchen*

4 Roast Ovens
8 Range Ovens
3 Grills

2 Small Deep Fat Fryers
1 Large Deep Fat Fryer
4 Bake Ovens

▀ Ancient scholars insisted that learning alone should satisfy most of the bodily needs of earnest students. But modern scholastic appetites refute these precepts; present-day teachers look upon proper feeding as an essential element of education.

▀ In the best tradition Hampton Institute, Hampton, Virginia, has constantly improved its mass-feeding equipment by installing modern Gas Equipment—has achieved signal recognition by the citation of its kitchen in a recent food-service competition.

▀ Users of GAS for over 50 years, Hampton Institute's managers installed their first all-GAS kitchen in 1941. Benson L. Dutton, Certificated Civil Engineer, who is the Plant Engineer at Hampton Institute says, "Our

experience with Gas Equipment has been very satisfactory; it enables us to do quality cooking in large volume at an economical cost in comparison with other fuels."

▀ Your kitchen-planning consultant or your local Gas Company Representative will assist you in selecting Gas Equipment for any mass-feeding requirements.

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membership in the retirement system made a major contribution to the successful operation of the cafeterias throughout the war period. Retirement rights caused many superior employees to remain with the cafeterias rather than accept positions elsewhere in which greater current earnings could be had.

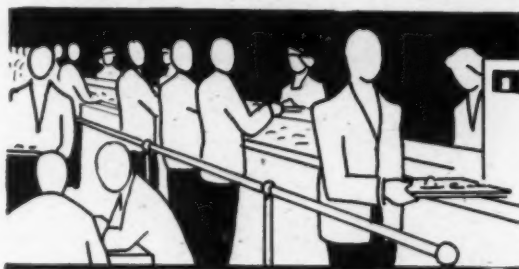
Eight working days of paid vacation are granted annually to all monthly cafeteria employees. As a protection to the individual worker, a liberal sick leave policy is in effect which provides one day's sick leave privilege for each month of service accumulative to a maximum of thirty days for all regular employees in the schools' cafeterias.

In addition to the foregoing full pay sick leave privilege, 45 per cent of the worker's salary is paid for qualified absence not to exceed 100 days. This policy has been in effect for three years and there has been no evidence of abuse. Cafeteria employees understand that maintenance of desirable personnel policies are based upon the ability of the cafeteria system to maintain an adequate lunch program at low cost.

Every effort is made to develop initiative and responsibility on the part of the individual cafeteria manager and her staff. Menus and food orders are initiated in each cafeteria. Reasonable control is maintained through central review and purchas-

ing. Each cafeteria is provided with a current financial report and it is the cafeteria manager's responsibility to review her program in terms of this report. Judgment of it is based on relative expenditures for food, salaries and other items rather than in terms of profit and loss. It is understood that the overall control of profit and loss is the responsibility of the central administration.

Consistent and fair personnel policies have proved their value in the development of staff morale and a sense of personal responsibility for the welfare of the cafeteria program. Resultant efficiencies have more than made up for the additional costs of these policies.



The Principal *and the* School Lunch

MARGARET E. PRENTICE

Chairman, School Lunch Supervisors, Bureau of
Home Economics, New York State Education Department

WITHIN recent years the school lunch has come to play an important part in the education program of our young Americans. Much has been written about it without bringing into the limelight one of the principal characters, the school administrator. Upon his shoulders rests the success or failure of the entire program.

School administrators in New York State are becoming increasingly interested in the school lunch as a part of the educational program. They realize that a good feeding program not only is a means of improving the nutritional status of children but also provides an additional situation in which valuable learning experiences can be gained. Administrators are readily assuming responsibility for the organization and supervision of the lunch program in their schools.

A lunch program has many desir-

able objectives. It may not be possible to attain all of them at the outset, but the following seem to be important.

1. To improve the health of children by making the eating of a suitable lunch a part of the day's program.
2. To develop desirable food habits.
3. To develop an understanding of the food necessary to meet daily nutritional needs.
4. To develop an appreciation for high standards in the preparation, serving and storage of foods.
5. To provide an opportunity for the practice of accepted table manners and social behavior.

A lunch program may range from the serving of milk, fruit, a sandwich and one hot dish prepared by the teacher and pupils in a one room rural school to the cafeteria service in a large city school.

A good lunch, in essence, is one in which the menu is planned adequately to meet the nutrition needs of all the pupils. The food is prepared to give the maximum of food value, is attractively served and furnishes all the children with a complete lunch at a reasonable price. Those who cannot afford to pay should be given the meal free or at less than the generally prevailing cost.

The dining room is an important factor in the school lunch program. It should be a pleasant and attractive place where, during the meal hour, children receive guidance in developing satisfactory food habits and at the same time are learning accepted social behavior.

Teachers, too, share in the program by supervising the lunch hour and eating with the pupils. They use the school lunch as a motivating force for teaching the principles of

health and as a means of vitalizing classroom instruction.

Parents and community groups are also actively concerned with the program and are giving their support wholeheartedly. Community groups in some instances sponsor the school lunch program and provide funds, labor, equipment and food.

While the successful operation of the school lunch should be the joint concern of the staff, pupils and parents, in reality it is the principal who

has the responsibility for developing a cooperative program. To accomplish this, he will, with the approval of the board of education and in cooperation with the school lunch manager, accept the following duties.

1. Make plans for adequate space, essential equipment and facilities.
2. Prepare a yearly budget.
3. Employ trained personnel.
4. Keep accurate records and accounts.
5. Schedule lunch periods for the

maximum educational and nutritional returns.

6. Allow time for teachers to help plan the school lunch and nutrition education programs and to participate in them as part of their regular duties.

7. Make it possible for all children to have an adequate lunch.

8. Organize a community school lunch committee.

9. Interpret the program to parents and community groups.

In addition to assuming the foregoing duties, the school administrator must take into consideration the state education department's facilities for the supervision of school lunches and the federal reimbursement to be obtained from the U. S. Department of Agriculture.

Many principals in this state could join wholeheartedly with Jerald Newton, supervising principal of the Central School at Copenhagen, N. Y., in saying, "The school principal's job is to know the needs of the children and to meet those needs, at least while they are in school. The maintenance of a good state of nutrition is one of the major needs. In our school we have placed the administration of the school lunch program on the same basis as other school services. The school lunch is available to all the pupils, is supported by the taxpayers and is administered and supervised by the board of education through its hired representatives, the principal and the teachers."

Luncheon Managers Organize

School lunchroom managers in Westchester County, New York, have formed their own organization as part of the Westchester County Home Economics Teachers Association. This action was taken because of the feeling that, whereas the lunchroom managers in Westchester County have been faced with many similar problems, little has been done to assemble information that would be helpful in solving them.

The newly formed group is planning monthly meetings scheduled to be held at various schools. These will include a business meeting, preparation and presentation of reports and surveys and a formal program on which eminent speakers will appear. An affiliation with the School Food Service Association is also contemplated because of the feeling that identification with the national group holds very definite advantages for members.



This layout makes excellent use of a corner, to get the full capacity of the automatic feed machine.

If you need an automatic, be sure to see the simplest and most dependable machine of this type—the Champion Hydro-Drive.

We also build a complete line of rack type hand feed dish washing machines, and belt conveyor type. Write for catalog.

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HEAT...QUICKLY
EVENLY**

One $\frac{3}{4}$ " diameter burner under
the 892 square inch griddle bottom!

The Griddle Test, using the heavy duty roasting pan cover, is a dramatic demonstration of how Wear-Ever Aluminum spreads over a large area the heat from even a small source. (Of course you normally would never attempt to heat a pan of this size— $21\frac{5}{8}$ " x $18\frac{1}{8}$ " x $2\frac{1}{4}$ " deep—with one burner only $\frac{3}{4}$ " in diameter).

When the five pancake strips are turned, you notice how sufficient heat has been diffused throughout the Wear-Ever Aluminum to bake the strips to an appetizing, golden brown color. Because of this quick, even heating, Wear-Ever Aluminum eliminates the need of grease, thus no smoke, no odor.



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Made of the metal that cooks best... easy to clean

NEWS IN REVIEW

Would Raise Teacher Standards

A nationwide campaign to raise the standards of teaching is now being waged by the national commission on teacher education and professional standards of the N.E.A.

The campaign in which teachers themselves, organized into local committees, are taking the lead has three objectives as stated by Ralph McDonald, secretary of the N.E.A. commission. These are: (1) to encourage outstanding young men and women to choose teaching as a career; (2) to eliminate from teacher education those who are not qualified; (3) to further the conditions necessary to attract and hold the highest type of teachers in the public schools.

Parallel campaigns are taking place in thousands of communities in all states during April and May. They are being sponsored by citizens' committees representing civic clubs, business and labor groups, women's organizations, farm and religious leaders, boards of education and parent-teacher organizations. Extensive use is being made of various campaign materials, including fliers on teaching as a profession and explanatory materials which will be placed in the hands of promising prospective teachers.

A national conference on professional standards is planned to be held in July prior to the Cincinnati meeting of the N.E.A. assembly.

Building Cost Peak to Come Soon

Institutions Magazine quotes E. Warren Bowden, prominent New York construction official, as saying in an article published by Dun and Bradstreet, Inc., that with regard to the "when" and the "how" of the building cost peak, it is his opinion that the top limit of post-war institutional construction costs either is here now or will be reached within the next five or six months. Government agencies and producers of materials, he says, believe that, in general, the material supply will equal the demands of construction in 1947. This will lower the unit cost of producing the materials and will have an important bearing on increasing the efficiency and economy of construction operations on the site.

Military Training Debate

On the *New York Times* Radio Forum "What's on Your Mind?" broadcast over WQXR from the Roger Ludlowe High School at Fairfield, Conn., recently representatives of education, labor, the American Legion and the Citizens Committee for Military Train-

ing debated the issue "Must We Have Universal Military Training?"

The spokesman for education stated that educators oppose military training on the basis of its compulsory nature and the time it takes out of the lives of young men without guaranteeing national security. The legion's spokesman stated that his group favors military training because the lack of it in the last war was responsible for heavy loss of life.

The labor man said that labor unions represent the largest number of war veterans and that they are opposed to measures that would militarize the country. He declared that veterans' groups are not unanimously in favor of military training.

The citizens' committee representative held that universal military training, which would provide a large reserve, was "the most economical and best way of settling the problem of defense."

When the moderator asked how military training would affect the country's educational system, the legion's spokesman said its plan calls for four months of basic training and eight months of study in any field, with the government furnishing the money.

The citizens' committee spokesman stated that training would give many boys an opportunity for education they otherwise would not have.

The educator declared that if the problem is one of education, educators should be called in to do the job, that education problems should not be turned over to the military.

Labor's representative suggested that instead of military training persons should be trained in advancement of democratic ideals and the elimination of the causes of aggression.

Catholics Assail N.E.A.'s Stand

Opposing the N.E.A.'s "all or nothing" stand on federal aid, supporting President Truman's foreign policy, urging use of U.N.E.S.C.O. funds to promote the "mutual understanding" and "moral solidarity" of mankind and favoring the "immediate" increase of teachers' salaries, the National Catholic Educational Association closed its three day annual meeting in Boston on April 10.

The Rev. William E. McManus of the National Catholic Welfare Conference led the attack on the N.E.A.'s stand on federal aid, calling upon public school teachers "to beware of the antisocial, antidemocratic policies expressed by the leadership of the N.E.A."

"Catholic schools ask for a reason-

able and limited amount of public funds," Father McManus asserted, "just enough tax funds to make the Catholic schools an integral part of American education, just enough money for our schools to disabuse the public school professional groups of any antidemocratic notions that they have a monopoly on American education." The Taft bill could be modified to permit federal aid to Catholic schools, he declared.

American Catholics were asked to spend from \$25,000,000 to \$50,000,000 for the purpose of "assuming leadership in combating the onward sweep of totalitarianism" by President George N. Shuster of Hunter College, one of the convention's headliners.

"In Western and Central Europe there are no energies other than those of Catholicism capable of assuming leadership in resisting the spread of totalitarianism. Every other important group is in some manner allied either with capitalism in the predatory sense or with Marxianism. Other groups will follow if Catholic leadership is offered. If, then, there is to be any debate with Russian Communism in terms that Europe can understand, it will be a debate in which Catholics are protagonists," Dr. Shuster stated.

Archbishop John T. McNicholas of Cincinnati told the 7500 delegates that a "cordial partnership between Church and State is essential to sound education." Church and State should not discharge their respective duties as enemies, he declared.

"Atheists, agnostics, Communists, certain fraternal organizations, indifferentists and secularists are opposing freedom of education and consequently taking a stronger position against Church schools."

"These several groups make the claim—clandestinely, semipublicly, boldly—that the only American system of education is the tax supported school."

U.N.E.S.C.O. to Extend Activities

Dr. Julian Huxley, director general of U.N.E.S.C.O., stated in Paris recently that the organization plans to extend its educational activities into Germany. Its program has been limited so far to member states.

Britain Raises School-Leaving Age

The British government, in the face of strong pressure from labor-hungry employers, recently raised the compulsory education age from 14 to 15, thus carrying out the dream of the late education minister, Ellen Wilkinson. Many industrialists, politicians and others had

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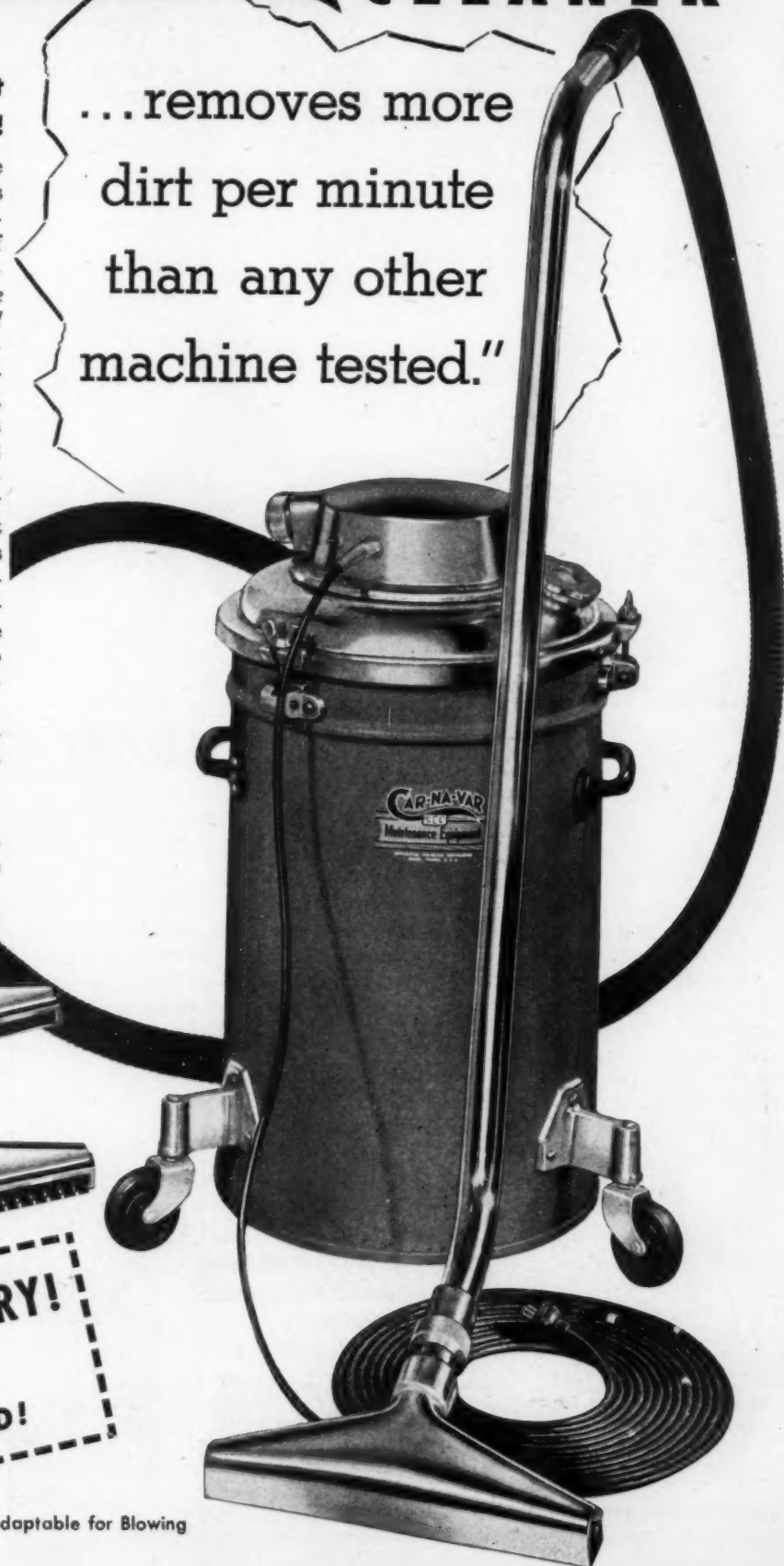
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tried to have this action postponed for a year, arguing that with the current manpower shortage in all vital industries the nation needed the youthful workers more than the children needed the additional year in school.

College Wants More Students

Farragut College and Technical Institute, Farragut, Ida., has announced that it has facilities to care for 200 students with families and from 800 to 900 without. The school took over the Farragut Naval Training Station last October as a private college under the sponsorship of the American Legion, Veterans of

Foreign Wars and other veterans' groups, with the approval of the Veterans Administration and the Idaho department of education.

Block Sale of Mann-Lincoln School

Negotiations for the sale of the Horace Mann-Lincoln School, experimental school of Teachers College, Columbia University, have been deferred pending action by the higher courts. The university wishes to dispose of the school and the board of education wishes to purchase it to replace a building which is old and inadequate.

The P.T.A. of the Mann-Lincoln

School, however, is opposed to this action and plans to appeal the supreme court's ruling. Its president, Mrs. Elinor S. Gimbel, has recently returned from a meeting of the Women's International Democratic Federation at Prague where progressive schooling was advocated by delegates from 34 countries.

SALARIES

State Action on Increased Pay

States which to date have established by legislative action a minimum salary of \$2400 for teachers are Arizona, California, Nevada, Washington and Indiana. West Virginia has raised its minimum salary to \$1800 and Alaska to \$3000.

Other states which have taken legislative action to increase teachers' pay are Arkansas, Idaho, Montana, New York, North Carolina, North Dakota, Tennessee and Virginia.

The Mississippi senate approved a \$5,000,000 appropriation to supplement teachers' pay, but according to an estimate by the N.E.A., even with the increase, Mississippi will be paying an average salary of about half the \$2400 minimum.

More Pay at Oglesby, Ill.

The teachers and the board of education at Oglesby, Ill., have worked out cooperatively a new salary schedule. Advances are based upon: (1) \$200 for each year of college training, (2) \$100 for each of the first two years of teaching experience, (3) \$50 for each of the third and fourth years of teaching, (4) \$25 for each of the fifth through the eighth years, (5) a starting salary of \$1700 a year for teachers with two years of training and no teaching experience, (6) \$200 for teachers with twenty years of service in addition to the salary allowed them by their place on the salary schedule.

The average pay rise was more than \$400 per teacher, with a range from \$250 to \$650. E. J. O'Leary is superintendent at Oglesby.

Teachers' Salaries at Alvin, Tex.

The school board at Alvin, Tex., has approved a blanket rise of \$500 for each teacher for the year 1947-48. The minimum salary is \$2300 with a maximum of \$3050 for teachers with a bachelor's degree. There is an annual increase of \$75 for ten years' experience with \$25 a year up to a maximum of \$250 for outside experience. Five dollars a semester hour is allowed for all graduate work. The average annual salary for the Alvin school system, including principals, is \$2888.



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DO TELL TALES!

Outside of their own kind possibly, nobody mourns the loss of destructive insect pests. Dead, they spin a tale of heightened morale, increased efficiency and sanitary safe-guarding of product.

Dead, they also bear strong testimony to the West Vaposector Fluid dispersed by the new, streamlined West VAPOMAT.

Just one filling of the West Vapomat with Vaposector Fluid will effectively control roaches and similar crawling insects in areas of 50,000 cubic feet. Will also achieve a "Positive Kill" of flying insects in areas of 500,000 cubic feet!

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Salaries at Cedar Rapids, Iowa

Teachers in the schools of Cedar Rapids, Iowa, will benefit from a new salary schedule which begins at \$2000 for teachers having a bachelor's degree and increases to \$3600 for those with a master's degree. After the maximum has been reached, \$100 is added for each five years of experience. The doctor's degree is recognized in the schedule with a \$200 increment above the master's degree pay.

New Maximums at Bogota, N. J.

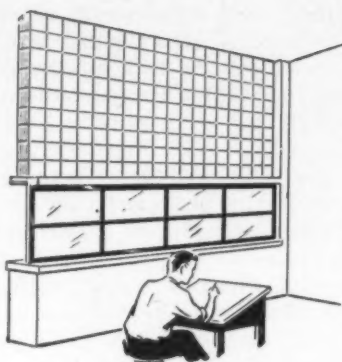
Teachers in the public schools at Bogota, N. J., will benefit from a revised salary policy, according to which maximum salaries have been raised for those with less than four years' training from \$2600 to \$3300; for those with the bachelor's degree, from \$3200 to \$3900; with the master's degree, from \$3400 to \$4200. Instead of the nineteen years previously required to reach the maximum, the time is now fifteen years. Teachers who have been in the system nearly fifteen years, or longer, will receive increments sufficiently large to enable them to reach their maximums in from one to four years.

Connecticut Towns' New Salaries

The communities of Newtown and Woodbury, Conn., in regional high school district No. 3 of which Carroll F. Johnson is superintendent, have adopted new salary schedules which are relatively high for rural school systems. The schedules represent the cooperative efforts of school boards, teachers and administrators and were adopted only after meetings and discussions and approval by teaching staffs. The Newtown schedule was also discussed with the board of finance before contracts were issued. Woodbury does not have a board of finance.

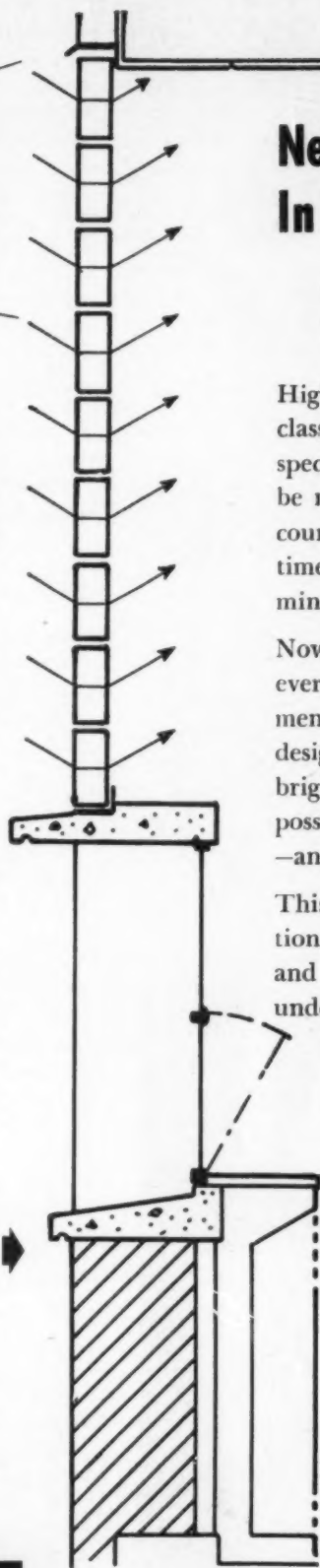
According to the Woodbury schedule, a teacher with a bachelor's degree and no experience receives \$2000; with a master's degree, \$2300; with a master's degree plus one year, \$2500. Each of these salaries advances \$150 with each year of experience up to three, after which they advance \$100 for each additional year. The maximum for teachers in the first classification is \$3450 after thirteen years; in the second, \$3950 after fifteen years, and in the third, \$4250 after sixteen years. The maximum for a teacher with less than two years of college is \$2400; with two to three years of college, \$2500; with three to four years, \$2600.

According to the Newtown schedule, salaries for teachers with an A.B. degree and an A.B. plus 16 points, each with no experience, are \$2100 and \$2200, respectively. These sums increase \$150



Low brightness contrasts are a must in the well designed school. Just think what an advance has been made over old constructions when the child sees brightnesses on the front wall (exclusive of chalkboard) almost identical with those of his task—when he can look around the room and keep most of his brightness contrasts within three to one—when he can work in a 60-degree cone of vision with most of his contrasts within three to one—when diversity in task brightness from inside to outside of the room under overcast sky conditions is within five to one and under direct sun is within three to one. All of these are possible when the type of fenestration used here by Eberle M. Smith Associates in the Vernor School, Detroit, is used to bring in daylight. You can get the whole story from "Daylight in School Classrooms."

Detail of the light transmitting construction used in the James Vernor School, Detroit. The offset window in the vision strip and the hood at the top of the window are special features designed by Eberle M. Smith Associates. The shading effect of the hood and the louvre effect of the construction give added protection to the child facing the front of the room.



New Performance Standards Reached In Daylighting School Classrooms

Quality Daylighting Can Now Be Specified to Assure Brightness Control and Low Brightness Contrasts

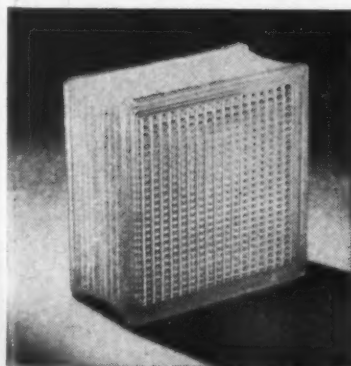
High brightness contrasts are a problem in almost every school classroom today. They run as high as 100 to 1, and more. Yet specifications for a good seeing environment demand that they be not greater than 10 to 1. Children in schools all over the country are faced with contrasts within the classroom many times as great as those specified by such authorities as the Illuminating Engineering Society.

Now it is possible to cut these contrasts to the lowest figure ever reached with daylight. By combining good interior treatment—sensible and practical reflectivities—with scientifically designed daylight transmitting structures it is possible to keep brightness contrasts to a minimum. Equally important, it is possible to predict in advance what task brightnesses will be—anywhere in the classroom for any outside light condition.

This has been made possible first, by designing a light-directional glass block fenestration for the special needs of schools, and second, by measuring the performance of that fenestration under all conditions of outside lighting. It is now possible to orient such a fenestration either east, south or west and forecast task brightness anywhere in the classroom for any latitude in the United States, any hour of the day and for any outside condition of lighting, direct sun, bright sky only, or overcast.

Good use of daylight does not take the place of good artificial lighting, nor of scientific interior treatment of the classroom. But it has long been the neglected third of this trio. Now it can step up and take its place in the scheme of good lighting.

How it is done is told in a new daylighting manual, "Daylight in School Classrooms." This book is available to architects, teachers and school officials without charge. Write for your copy today or use the coupon.



OWENS-ILLINOIS INSULUX GLASS BLOCK

Insulux prismatic block No. 351 has been developed for accurate daylight control. The pattern, utilizing the four faces of the block, turns light upward. The ceiling acts as a huge reflector to re-direct light downward.

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annually for three years, after which they advance \$100 annually. Teachers with an M.A., an M.A. plus 16 points and an M.A. plus one year receive a minimum of \$2300, \$2400 and \$2500, respectively, which amounts are increased by \$150 annually for three years, after which the annual increments are \$100. The maximums for teachers without degrees are the same as in the Woodbury schools.

Each town will move toward the new schedules at the maximum rate of \$500 for the year 1947-48. In each town, teachers without degrees will be obliged to continue their schooling until they

receive at least a bachelor's degree. Teachers with a bachelor's degree, and more especially those with a master's degree, will be given in-service credit for travel, contributions to professional literature, service in professional organizations and so on.

More Pay at Powell, Wyo.

A new salary schedule is to become effective September 1 in school district No. 1, Powell, Wyo. The minimum salary for a teacher with a two year certificate having one year's experience at Powell or 0-1 experience elsewhere is \$2000; the maximum is \$2700 after

eight years of local experience or six or more elsewhere. Teachers with a three year certificate and the same amount of experience, respectively, receive a minimum of \$2200 and a maximum of \$3000 after ten years. The minimum for teachers with the bachelor's degree is \$2400 and with the master's degree, \$2600. These increase to \$3600 and \$3800, respectively, in twelve years.

The new schedule states, among other things, that the district may award special salary increases to any teacher for outstanding merit; that a head of family shall receive \$350 a year for family allowance, with the board defining the head of family; that teachers in grades 1 to 6 having more than 35 pupils enrolled in their rooms by monthly average will receive \$1.25 additional remuneration for each pupil over the 35 payable on nine months' basis only.

New Salaries at Big Sandy, Mont.

The school officials at Big Sandy, Mont., have adopted the minimum salary schedule for teachers proposed by the Montana Education Association. On this basis, present as well as new teachers with two to three years of college training and from one to twenty-two years' teaching experience will average \$2821 a year.

Teachers with four or more years of training and from four to twenty-six years of experience will receive an average of \$3333. Because teachers had already received a \$200 bonus during the last year, the increase in the salary budget for next year will amount to only 20 per cent. Salaries for teachers will range from \$2160 to \$3590. Included are increases beyond the minimum schedule for special or extra work.

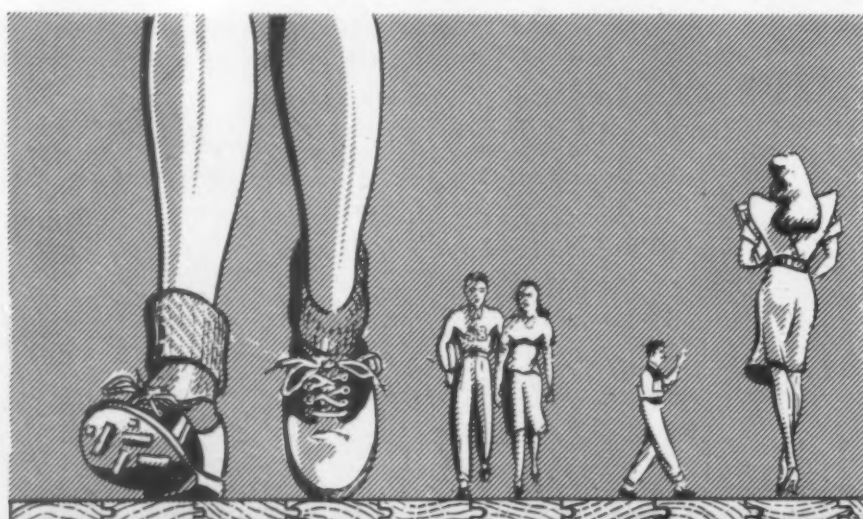
Supt. Charles E. Hood was re-elected with a 20 per cent increase.

County Schools' Salary Yardstick

A schedule of anticipated salary increases for school personnel in Benton County, Iowa, has been based on a survey of 1946-47 salaries made by G. W. Argo, county superintendent.

Benton is the most highly consolidated county in Iowa, having only seven rural districts. There is only one school with less than 30 sections, while eight schools comprise 50 to 75 sections and Vinton, the state's largest consolidated school, has about 120 sections. There are also two independent schools, but they have districts covering a township or more.

The schedule of comparative salaries prepared by Mr. Argo shows the present high, low and average salaries for superintendents, high school principals, teachers in various subjects and others, on down through the elementary grade positions and kindergarten, and the anticipated salary rises for the same positions. The advances range from



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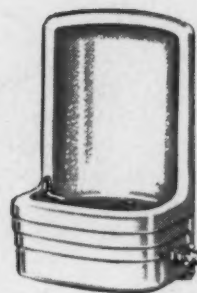


Last day! It will be here before you know it! And after years of starvation maintenance, you are doubtless considering bringing your facilities up to top efficiency.

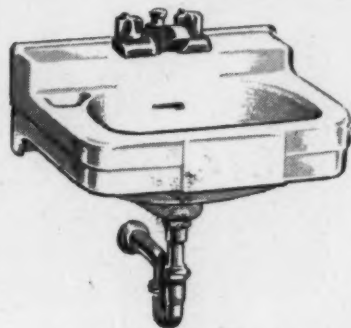
You can make the most of the vacation months by giving attention to the sanitary facilities of your school. Recent years have been hard ones on old installations, and now, with heavier enrollments, adequate, safe plumbing is needed more than ever.

Whatever fixtures the job demands, they're included in the broad Crane line. It gives you a complete selection for the varied needs of grade, junior, and high schools, plus the high Crane quality that defies hard usage.

Crane is in production on a complete school line of plumbing and heating. But it is unavoidable that some items cannot be delivered as promptly as others. It's well to discuss plans early with your Crane Contractor, Crane Branch, or Wholesaler. They'll do everything possible to help you.



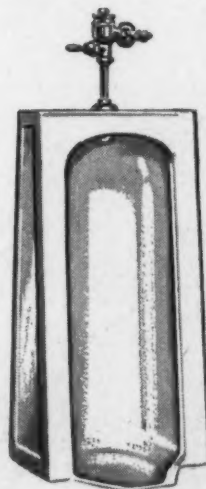
C-9261 Cristal Drinking Fountain



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Model 1100 Centralized School System
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16-inch record player, 40 room switches, push-button controls.

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sons come alive...students improve in diction, enunciation, voice production and public speaking, through

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unit which can be easily installed — quickly and economically, too. Call your local Stromberg-Carlson distributor today (see your classified telephone directory): or write for valuable free booklet "The Blackboard of the Ear." Address Stromberg-Carlson Co., Sound Equipment Division, Dept. S5, 100 Carlson Road, Rochester 3, New York.

\$200 to \$400. This material is for use by administrators as a guide in the salary advancement for present faculty members and as a measuring stick for the selection and recruitment of new personnel.

A superintendent's average salary of \$3734 in 1946-47, for example, under the anticipated schedule increases to \$4046 in 1947-48; a high school principal's, from \$2737 to \$2995; a history teacher's, from \$2110 to \$2450; an elementary grade teacher's, from \$1595 to \$2133 and so on.

The schedule shows similar comparative figures for other school personnel, including office secretaries, custodians, custodians' assistants, hot lunch workers and bus drivers.

Salaries Up 300 per Cent

The teacher placement bureau of the University of North Dakota states that inexperienced graduates of the university are being placed in teaching positions at salaries 300 per cent higher than those paid in 1937. Even so, says John A. Page, bureau director, young people feel that the increase is only temporary and are not showing great enthusiasm about becoming teachers.

During the last year, the bureau has placed 27 graduates in teaching positions and has assisted 37 former graduates in obtaining better positions. However, it had 228 calls altogether for teachers during the year. Mr. Page points out that few women and not more than 50 per cent of the men who left teaching during the war have returned to this type of work.

One factor which militates against an adequate teacher supply in small towns and rural communities is the unattractive and undesirable housing accommodations which are provided.

Whitefish Bay Teachers' Pay

The salary schedule for teachers in the public schools of Whitefish Bay, Wis., shows that it was revised in 1929, 1936, 1945 and March 1947. Effective September 1, salaries will be as follows.

| Class. | Min. | Max. | Increment |
|----------------------------|--------|--------|-----------|
| B.A. degree | \$1800 | \$3600 | \$100 |
| B.A. plus 15 credits | 1900 | 3700 | 100 |
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| M.A. plus 15 credits | 2200 | 4100 | 100 |
| M.A. " 30 " | 2300 | 4200 | 100 |
| Doctor's degree | 2400 | 4400 | 100 |

More Money, Still Resign

Despite salary increases of \$600 since 1945 and a \$300 pay rise which becomes effective July 1, the number of resignations among New York City's teachers has decreased only slightly. In March 267 teachers resigned as against 307 in February 1946 and 318 in February 1945.



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Teachers' Pay at Hillside, N. J.

According to the new single salary schedule, effective July 1 in the schools of Hillside, N. J., of which Wayne T. Branom is supervising principal, a teacher with three years' preparation and no experience will receive \$1900, which sum increases to \$3800 when she has had fourteen years of experience.

A teacher with a bachelor's degree and no experience will earn \$2000; after sixteen years, she will earn \$4200. A teacher with a master's degree will earn a minimum of \$2100 and a maximum of \$4400, the latter after sixteen years' experience, and one with six years

of preparation will earn from \$2100 to \$4600, the latter after seventeen years' experience.

The salary schedule for principals is as follows: elementary schools, \$4400 for a person with a bachelor's degree, \$4800 with the master's degree, \$5200 with one year of advanced training beyond the M.A., \$5450 with the doctor's degree. For a junior high school principal, the salaries are, respectively, \$4800, \$5200, \$5600, \$5850; for a senior high school principal, \$5200, \$5800, \$6500 and \$6750. An annual increase of \$250 will be given for each position.

Directors and supervisors will receive

\$300 in addition to the amount allowed for their exact step and training level.

WASHINGTON NEWS

Discounts on Surplus Extended

War Assets Administration Regulation 14 has been again revised by establishing the nominal price of 5 per cent of "fair value" in the disposal for educational and public health use of types of surplus property listed in Order 7, dated March 3. This 5 per cent is the approximate cost of disposition.

The surplus property includes millions of dollars worth of machine tools and some 50 other articles, such as thermometers, combustion controls, carbon paper and child care equipment units.

In releasing the admission of surplus property to be included under the 95 per cent discount instead of the original 40 per cent, W.A.A. determined that "there is an urgent need by educational institutions for various types of equipment, which need, in the case of educational institutions, has become acute because of an abnormal increase in enrollment in the face of an accelerated obsolescence of existing equipment."

It further determined that "in the case of elementary and secondary educational institutions present facilities are inadequate to provide proper instruction, and existing budgets are insufficient to enable institutions to purchase the needed equipment."

In announcing the new revision, Arthur G. Eaton, director of W.A.A.'s public interest division, said: "This program, the largest nominal pricing venture W.A.A. has sponsored to date, presents vocational schools with an unparalleled opportunity to meet the emergency problems arising from an abnormal increase in enrollment since the end of the war. The public benefit to be derived from training the youth of our nation more than justifies the discounts involved."

There is a definite disposition on the part of W.A.A. to include under Order 7 the general categories of surplus listed in Order 6 and the additions admitted to it. These include: instructional equipment, woodworking and metal-making machinery and equipment; business education equipment, communications equipment, electronic devices; heating equipment; furniture; optical instruments and apparatus; indicating, recording and controlling instruments and apparatus; engineering instruments and apparatus; glass and clay products laboratory ware; equipment for cafeterias, kitchens and dining rooms.

The disposition at 5 per cent of "fair value" will continue the financial benefits originally established as a result of

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Model
RS-ND30

BUILT like a fine watch—powered by a steady, smooth-running motor and mechanism that purrs through reel after reel without a flutter or a jump—so simple, a 12-year-old can operate it—that's the new DeVRY 16mm. sound-on-film projector that gives you:

The ultimate of sound, whether it be crisp, clear, intelligible conversation, or the full majesty of symphonic music... clear definition of image... uniformity of illumination over the screen's entire surface... soft, natural brilliance that assures viewing comfort because it is kind to the eyes.

The new DeVRY is a 3-purpose unit that (1) SAFELY projects both sound and silent films; (2) that shows BOTH black-and-white and color films without extra equipment; and (3) whose separately-housed 30 watt amplifier and sturdy 12-inch permanent magnet speaker afford portable Public Address facilities—indoors and out.

DeVRY CORP., 1111 Armitage Ave., Chicago 14, Ill.

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AN Ironton, Ohio, sight-saving classroom that boasted of 40 footcandles of illumination is shown in the insert. This is higher than average, but glare, strong contrasts and uneven light distribution produced a room uncomfortable to the students.

Then, lighting specialists redesigned the room, installed four continuous rows of G-E Fluorescent Lamps in shielded fixtures. Walls, woodwork, desks and floor were refinished in lighter tones. With an initial 90 footcandles, double the amount of light, contrasts were reduced, seeing made easy. Now the students are comfortable and school work improved.

See your G-E Lamp supplier or your local electric service company to benefit from the know-how of better lighting. And insist on G-E Lamps to benefit from the continuous research that makes G-E Lamps . . .

Stay Brighter Longer!



G-E LAMPS
GENERAL  ELECTRIC

the President's Executive Order of last October. It will not give the priority to educational institutions which existed under the Executive Order but it will extend the discount to other nonprofit educational institutions other than those in which veterans are enrolled and specifically includes elementary and secondary schools.

Schools and colleges in which veterans are enrolled will continue to receive surplus property virtually without cost through F.W.A. under the authority of Public Law 697 which was not affected by the Executive Order. During March, educational institutions received surplus

through this channel with a "fair value of approximately \$850,000."

Hearings on Federal Aid Bills

Preliminary hearings were held April 9 before the subcommittee on education of the Senate committee on labor and public welfare on the various bills to provide federal aid to education. Other hearings were scheduled for April 21.

Senator Aiken, in speaking of his bill, which would appropriate \$1,200,000 annually for education, said, in part, "Education must be dealt with as a national responsibility and not as a relief problem."

Senators Green and McGrath urged consideration of their bill to increase teachers' salaries. They pointed out that the number of teachers who had left the profession because of low pay "constituted one of the greatest vocational migrations in our history."

President Conant of Harvard University spoke in favor of the equalization principle in federal aid. In answer to his own question as to why the citizens of a relatively wealthy state should be taxed to help education in poorer states, he said: "The answer is twofold. First, all the youths of the country are future citizens of the entire country; their activities as citizens and voters will determine the kind of nation we are going to live in.

"Second, as the population figures show, we are a mobile people; there is a constant movement of inhabitants from one state to another. The future citizens of many of our wealthy cities are now being educated in our poorer states. In terms of the self interest of these relatively prosperous communities, money is well spent in the education of their future residents."

As an example of the discrepancy among opportunities in different states, Dr. Conant pointed out that in 1944-45 New Jersey spent 1.74 per cent of its people's income on schools, which provided \$198 for each school child. On the other hand, he said, North Carolina spent 1.91 per cent of its income and provided only \$68 per child.

Educational Facilities Approved

In its final release on April 6, 1947, C.P.A. reported that applications for the construction of educational facilities costing more than \$300,000,000 had been approved during the year ending March 27.

This was 10 per cent of all construction approved throughout the period. While C.P.A. denied 41 per cent of all applications for industrial construction, the denials for construction of educational buildings amounted to less than 5 per cent. Applications denied were for exclusively noninstructional facilities which it was believed should be postponed to give priority to the more essential elementary and secondary school, classroom and laboratory facilities.

Children on Federal Reservations

Bills have been introduced into Congress that would authorize the government to provide opportunity for free public elementary and secondary school education to children living on federally owned property.

The war increased the number of persons living in army and navy establishments, munition production areas and other reservations owned by the fed-



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Close-up of new swing-out gate, showing gate in open position

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New from every angle, this Ampro Model 30-D Projector for 2" x 2" slides and 35mm. filmstrips is ideally suited for classroom use. Simple to operate . . . with curved film guide-ways to guide filmstrip in exact position for crisp, brilliant pictures. Automatic snap-action, self-centering slide carrier assures perfect focus . . . with one hand operation. Quick tilting . . . sharp, clear reproduction . . . lift-off carrying case . . . many other outstanding features.



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NS 547

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Church MOL-TEX Seats are indestructible. A cross section sample will quickly convince you. One will be sent upon request, free, to school officials or those in charge of maintenance of school buildings — Examine it — You cannot break it — You cannot dent its glossy surface.

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eral government. Since these lands are not subject to tax, the state or local community has supplied education for the children of families living in these areas without direct income for such educational services.

The proposed legislation would authorize the U. S. commissioner of education to enter into agreements with existing state and local educational agencies of the state in which the property is located whereby the federal government will pay for the education of children living within the area. If no state or local agency is able or willing to provide education, the commissioner may make whatever other arrangements are necessary for their free public education using funds authorized to be appropriated.

The various bills have been referred to the House committee on education and labor.

V.A. Liberalizes Financial Policy

Circular 33 issued April 3 by the Veterans Administration describes the new bases of payment to nonprofit educational institutions for veterans enrolled under Public Laws 16 and 346.

This circular amends Section 1, Paragraph 1 (2) of V.A. Circular 268 dated Nov. 15, 1946, and authorizes payment *in full* at the end of the acceptable refund period rather than the former 50 per cent or 75 per cent of tuition charges or the estimated cost of teaching personnel and supplies for instruction.

As soon as the institution is able "to determine the number of credit hours for which veterans are enrolled and for which performance will be recorded, the institution may bill and be paid for the full amount of tuition at the contract rate per credit hour and for the full amount of the other customary non-tuition fees charged by the institution.

"The 'number of credit hours for which performance will be recorded' means those credit hours of work for which the student is finally enrolled after the expiration of the period during which he is permitted to change courses without penalty insofar as credit is concerned. The credit hour valuation used for purposes of calculating the payment will be the normal credit offered by the institution for the subject or course involved without regard to the fact that performance may finally be recorded in any one of a number of various terms, such as full credit, withdrawn, incomplete or such other record of performance as may be made following the expiration of the date for change of course without penalty."

Of equal importance to schools and colleges charging nonresident fees is the confirmation, by this circular, of the fact that such fees do not exceed the "cost of teaching personnel plus supplies for

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The patented, radially placed strands of Sun Ray Woolers always rotate at right angles to the work, insuring fast, clean operation. When polishing waxed floors these woolers do a remarkable job of hardening the wax film and removing excess wax.

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instruction." This decision ends a long period of discussion and changing policies of the Veterans Administration and authorizes institutions to choose any of the following three bases for billing the V.A.: the minimum of \$15 per month, \$45 per quarter or \$60 per semester for each veteran; the nonresident fee plus other nontuition fees; or, by contract, the cost of teaching personnel and instructional supplies.

Nonprofit educational institutions may now bill the V.A. for disabled veterans enrolled under Public Law 16 on the same basis as for veterans enrolled under Public Law 346, rather than only on the

basis of established fees, as heretofore. In doing so, the institutions may select the one of the three alternative bases described above and, in addition, may continue to collect for the full cost of special services rendered for disabled trainees at the request of the Veterans Administration, since these are not included in any one of the three bases of payment.

Economies and Delinquency

The proposed economies in government spending have brought forth two protests relative to increase in juvenile delinquency and crime.

One is the statement of the Attorney General that the proposed cut in funds available for the employment of federal officers for border patrol and import inspection would make the United States a haven for the disposal of illicit drugs and increase their use among youths and adults.

The other protest was specifically related to economies in expenditures for the District of Columbia but, by implication, applies to many other communities. Judge Fay L. Bentley said that the war years saw her staff depleted and that the resources of the court are still inadequate. "The prime need of the community," Judge Bentley stated, "is facilities to prevent child crime and to cure the potentially delinquent youth of his failings."

The report recommended the following action to stem juvenile delinquency:

1. Strengthen all social institutions in the community.
2. Provide an adequate floor of economic security for all families.
3. Provide adequate housing.
4. Improve recreational opportunities.
5. Recognize that in schools the child has the right not only to learn academically but to develop himself as an individual.
6. Make available social agencies, child guidance clinics, adequate medical facilities for parents and children and spiritual guidance.
7. Make the community aware of its responsibility in the molding of children's lives.

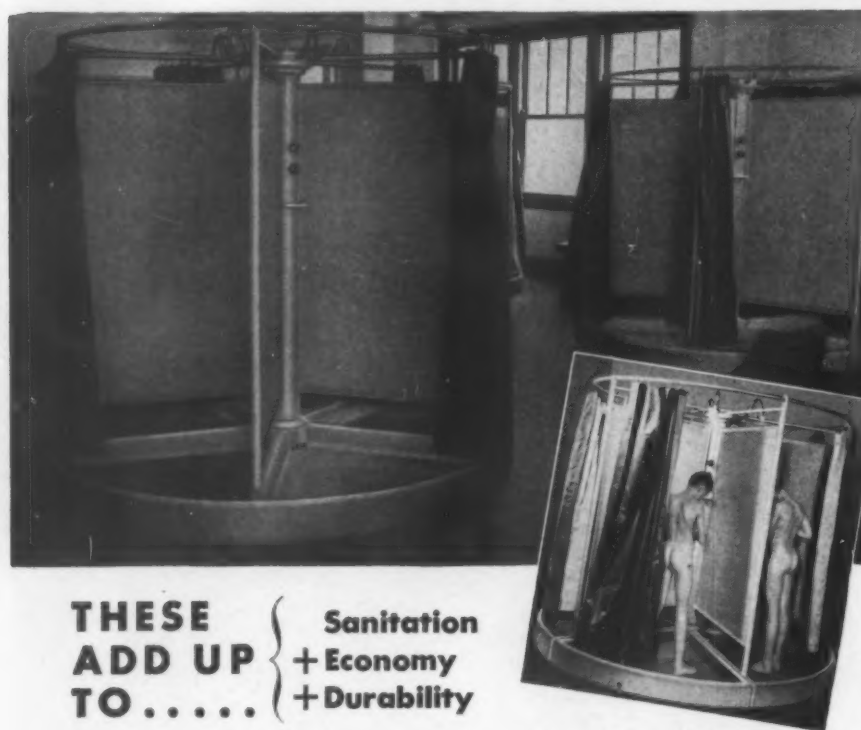
Temporary Housing Legislation

Several bills have been introduced to transfer title of temporary housing erected by the government to educational institutions upon the request of the institution. This legislation, if enacted, would also free the buildings from the present requirement that they be demolished within two years after the official termination of the war.

Other bills would release them from the requirement of demolition without transfer of title. Still other proposed legislation would give to states and their political subdivisions, which would include public schools and colleges, all of the educational and recreational facilities erected by the government during the war.

Proposals on Surplus Property

Recent bills to amend the Surplus Property Act of 1944 which have most interest for educational institutions are those which: require individual authorization by Congress for disposal of any plant costing the government \$1,000,000 or more; give first priority for purchase of any surplus from the civilian defense activities to the local community or the state in which it is located; change the



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TO** $\left\{ \begin{array}{l} \text{Sanitation} \\ + \text{Economy} \\ + \text{Durability} \end{array} \right.$

BRADLEY MULTI-STALL SHOWERS

School wash facilities, to be complete, require some form of shower convenience. Modern educational institutions recognizing this need, have selected Bradley Multi-Stall Showers for maximum sanitation, economy of operation and long-life durability.

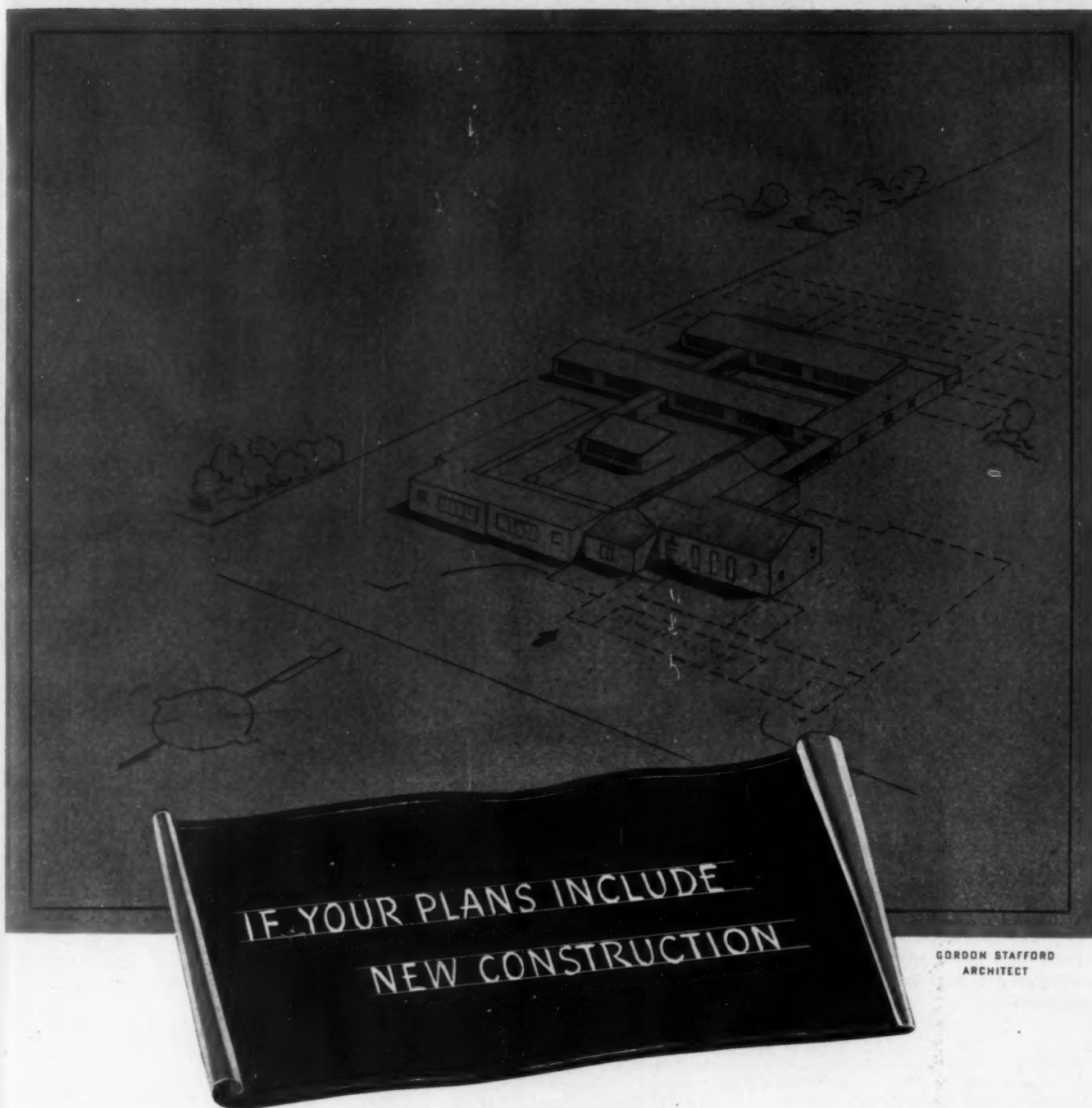
One Bradley 5-Stall Shower unit requires only 3 plumbing connections in comparison to 15 needed for 5 "single-stall" units. This simplified installation plus complete absence of corners and dirt-collecting pockets cuts cost of upkeep and janitor detail. Savings are also realized through lower hot water costs made possible by reduced water consumption.

For new school buildings, for expansion of present facilities or for modernizing existing buildings, Bradley 5- or 3-Stall Shower units can be installed quickly and easily on any kind of floor including wood. Distributed through plumbing wholesalers. BRADLEY

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- 2 That due to material shortages, everyone concerned with school construction work should work well in advance in selecting school equipment needs.
- 3 In laying your plans, consider the best in equipment, fully investigate the Lyon line.

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priority status of small business, and authorize the creation of an agency to supervise and control the distribution of surplus property among the tax exempt and nonprofit educational institutions and schools in the District of Columbia.

There seems to be general agreement that changes in the policies of W.A.A. are proving more beneficial to educational institutions than modifications in the basic law would be.

Maritime Disposal Goes to W.A.A.

Surplus property disposal of the Maritime Commission, with the exception of ships and small vessels, was transferred

to the War Assets Administration on April 5. Items included in the transfer are marine engines, ship's turbines, winches, windlasses, navigation equipment, anchors, life saving equipment and so on.

Bill to End Time Entitlement

Senator Taft has introduced S. 977 which, if enacted, would end as of March 31, 1947, the time during which military personnel now in the armed forces could accumulate time entitlement for education and training. Public Laws 16 and 346 use the phrase "termination of hostilities" as the terminal for ac-

quiring eligibility for benefits but neither Congress nor the President has as yet declared this termination.

Hearings on New Department

Hearings have been completed on legislation to establish a Department of Health, Education and Security but the committee on expenditures in the federal government has delayed its report. The delay is due partially, at least, to efforts on the part of medical and health groups to procure prior action on a bill introduced by Senator Taft to establish a national health agency as an independent agency of the federal government.

Science Foundation Bill

The Senate committee on labor and public welfare has favorably reported S. 526 to establish a National Science Foundation and speedy passage of the bill by the Senate seems promising. Hearings by the House committee, however, have not yet been scheduled.

The bill authorizes the establishment of a board of 24 members to be named by the President from candidates to be submitted by educational and scientific organizations. Provision is made for five divisions: medical research; mathematical, physical and engineering sciences; biological sciences; national defense; scientific personnel and education.

The function of the last named is to "administer programs of the foundation relating to the granting of scholarships and graduate fellowships in the mathematical, physical, medical, biological, engineering and other sciences."

The bill represents a compromise. While it does not include the social sciences, it does not exclude them.

N.E.A. Reports on Court Decisions

The National Education Association has published a summary of recent judicial decisions affecting teacher tenure. Among the cases analyzed are those dealing with contract cases, status of probationary teachers, demotions and seniority rights.

Copies may be obtained from the headquarters of the N.E.A., 1201 Sixteenth Street N.W., Washington 6, D. C.

Schools Continue Savings Program

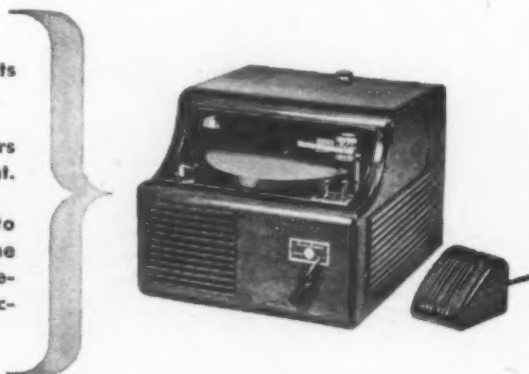
"More than 5,000,000 pupils are buying U. S. savings stamps and bonds regularly in some 41,000 elementary and secondary schools," according to Jarvis N. Morse, director of education, Savings Bond Division of the U. S. Treasury Department.

"We can measure progress in our school savings program in peacetime," said Dr. Morse, "by comparing these figures with those of 1941, when only 2,500,000 pupils in 8400 schools were

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The SoundScriber method simplifies language instruction and makes it more effective because:

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student records and checks his own pronunciation, diction and usage.

With SoundScriber both instructor and student work more effectively during drill periods. Actual use in schools, colleges and universities is a tribute to its effectiveness.

Ask for material telling how leading schools, colleges and universities use SoundScriber to meet the problem of increased enrollment in language classes.

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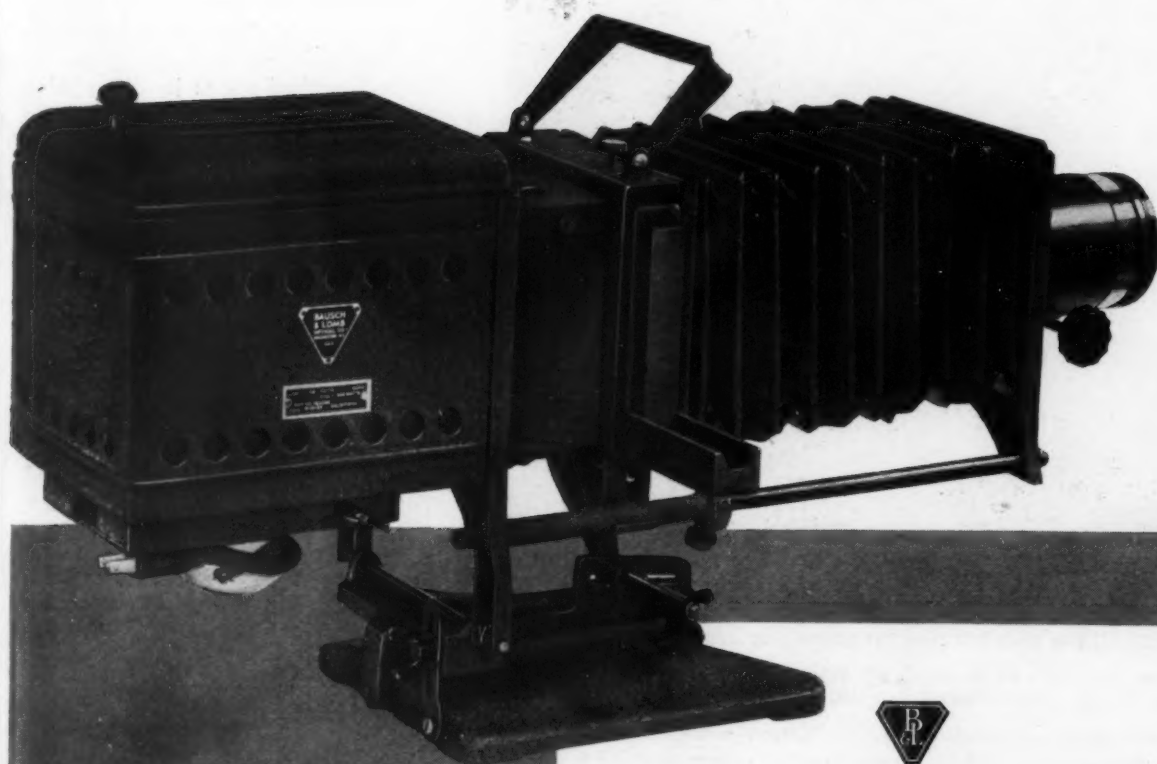
...for Sharp, Brilliant Screen Images

An effective visual teaching tool, the Bausch & Lomb BDT Balopticon* is widely used by instructors and lecturers. It projects clear, well-defined images measuring from 4 to 10 feet on the longer side at distances from 15 to 50 feet, depending upon the focus of the lenses used. A powerful illuminating system provides edge-to-edge brilliance under general illumination adequate for note taking.

Equipped with an adjustable tilting base, the Model BDT may be placed on a school desk or other inclined support, yet be leveled to show a symmetrical image on the screen.

This compact, substantially built projector is easily operated—gives long, trouble-free service. Details available in catalog E-11. Bausch & Lomb Optical Co., 689-E St. Paul St., Rochester 2, New York.

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saving through school or classroom savings plans. But we don't need dollar totals to tell us that school children are putting lessons in saving into practice. National Savings Stamp sales to school children are running around 10,000,000 a month.

For Guidance of Rural Youth

The Washington council of the Alliance for the Guidance of Rural Youth held its first meeting in more than a year on April 7. The alliance has moved its headquarters from Richmond, Va., to Washington, D. C. Howard A. Dawson, director of rural service of the

N.E.A., is the newly elected president of the board. Monthly luncheon meetings and a yearly conference to discuss the problems of rural youth are planned.

Elementary Science Conference

The U. S. Office of Education and Stanford University have announced a jointly sponsored conference in elementary science to be held on the Stanford University campus July 7 to 12. The conference will be of the popular workshop type. Its purpose is to give elementary teachers information on recent developments in science and to consider problems of curriculum and methods.

INSTRUCTION

Course in American Civilization

Knox College is establishing a new course to be called the Lincoln Lecture-ship on American Civilization. Former Chancellor Chauncey S. Boucher of the University of Nebraska will teach the course, which was endowed by Richard Lloyd Jones, editor and publisher of the *Tulsa Tribune*.

In announcing his gift, Mr. Jones deplored the generally obscure place given to the dramatic story of America's development in the curriculums of many colleges. The new course is aimed at teaching an appreciation of our "magnificent national heritage."

Discussion, dramatization and visual aids will be used in presenting the material. No final examinations, out-of-class assignments or homework will be required. On the other hand, Dr. Boucher assumes responsibility for presenting the subject so that students will gain a spiritual lift and will do more than merely earn two hours of credit for the three hours a week required.

Rabbits Replace Bees and Flowers

Old methods of giving sex instruction to young children by the "bees and the flowers" method are to be discarded in West Bromwich, Eng., where the town education committee has decided to use rabbits and mice instead. The committee chairman declared that it is time to do away with false modesty and leaving children in ignorance. Sex instruction is to be given to children aged from 7 years up.

Camp Schooling Experiment

An experiment in camp education is to be made in June by the public schools of New York City. On June 2 pupils from one class at each of two schools will go with two specially trained teachers to the Life Camps at Mashipacong, N. J., and will remain for about three weeks, the object of the experiment being to determine whether certain things can be learned more effectively and quickly in outdoor surroundings than in school.

The problems pupils will be required to solve will be in connection with the care of their own shelters and clothing; food, its resources, its purchase, its preparation; sanitation and conservation of natural resources, and problems concerned with harmonious group living and with prejudices and fears. The aim of the program is to stimulate ingenuity and resourcefulness.

Protestant, Jewish and Catholic religious services will be held weekly. The board will pay the teachers' sal-

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American Schools make your freedom more secure



When you are a modern school, you no doubt feel a thrill of pride in the educational advantages which our educational institutions provide for American youth. But do you stop to think how closely these institutions are linked to the good of your community, and to your own individual welfare?

James A. Garfield once said that without education "neither freedom nor justice can be permanently maintained."

The wisdom of that statement is clear when we realize that the task of education is to shape the character of our children, to teach them to appreciate the privileges and accept the responsibilities of a free society. Education thus provides the very basis for all our cultural and economic progress.

In communities, as in nations, where the level of education is high, living standards and incomes are high also. Yet today, efforts to maintain America's educational leadership are severely handicapped—by too few teachers

too poorly paid, inadequate facilities, and shortages of buildings and equipment. Your interest in the school problems of your local community will help build toward future security.

We of American Seating Company, in our work of creating and producing school furniture, have had the privilege of associating with American educators for more than 60 years. Great though their achievement is, it can be greater still with your understanding and cooperation.



Appeared in TIME Magazine, February, 24, 1947

PRESENTING SOME IMPORTANT FACTS ABOUT AMERICAN EDUCATION

WE AT American Seating Company believe that active support for American educators and education is not only a duty, but a fine investment in improved citizenship and a higher standard of living for all. Therefore, American Seating Company is currently presenting some vital facts about education to millions of Americans through a new advertising campaign in TIME Magazine.

With advertisements like those shown on this page, American Seating Company hopes to do its part to widen public understanding of the very real values of education to every individual in every community.



FREE—Write for your copy of our informative new booklet, "Education Makes Our Freedom More Secure," which outlines many practical methods for making the benefits and problems of American education known to the people in your community.

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Manufacturers of Theatre, Auditorium, School, Church, Transportation and Stadium Seating. Branch Offices and Distributors in Principal Cities.



American Teachers aid the progress of your community



Do you regard the teacher's job as one that applies only to children? If so, you are only the beginning of its significance.

The children trained by our teachers are constantly emerging from school to take their places in business, professional, industrial and cultural life. The kind of knowledge, character and ambition they acquired at school will largely determine the future welfare of their communities.

It is the teacher's responsibility to prepare pupils for this adult life as free citizens—to equip them to play an enlightened part in the pursuit of American ideals. The task has grown more complex with the changes wrought by industrial progress.

Our teachers also have a responsibility, of inestimable importance, to help dispel the ignorance that leads to prejudice, hatred and war—and replace it with knowledge that will foster the understanding and mutual respect among men and nations by which peace can be preserved.

With such a vital role in our welfare, American teachers are today working under discouraging conditions—

of inadequate compensation, overcrowded classrooms and insufficient facilities and equipment. The need is urgent for every community's business, professional and private individuals to cooperate with teachers in preserving our high educational standards.

American Seating Company, aware of educational needs through close association with educators for more than 60 years, earnestly recommends an active interest in your local school problems.



Appeared in TIME Magazine, March 31, 1947



American Educators help to raise living standards



In America, education, progress and prosperity are inseparable.

As educators improve the methods of teaching, their pupils become better fitted to embrace the expanding opportunities that lie ahead in every kind of endeavor. They gain appreciation of the new and better things that our nation and culture can offer—and so help to raise standards of living.

In communities where educational standards have been raised, the gain in higher average income and better living conditions has been far greater than the cost of the educational improvements. Hence, the time you pay for education in your local community, the time you pay for support by your vote, are not an expense but an investment that yields beautiful returns in prosperity.

At present, our schools face an emergency of a growing lack of good teachers, resulting from inadequate salaries and of insufficient space for increasing enrollment, out-

ward facilities, and scanty supplies and equipment. By taking an active interest in your local school needs, you can help solve a nation-wide problem that lies close to the welfare of everyone.

American Seating Company's interest in today's educational problems springs from an awareness of the vital knowledge we have gained through more than 60 years of developing and producing school furniture.



Appears in TIME Magazine, May 12, 1947

aries but other expenses will be borne by the children's parents, by the camps and by the camp committee of the school board.

A.A.A.'s 1947 Education Program

The American Automobile Association is sponsoring two educational programs. One is the third annual traffic safety poster contest, which is approved by the American Association of Secondary School Principals. It is a means of increasing interest in safety rules and at the same time provides awards totaling \$2075 (the grand prize is \$500) to art students for the winning designs. There

will be 40 prizes in all. Winning posters are distributed monthly to elementary school classrooms for use in teaching children the rules of traffic safety.

The other program of the automobile association consists of assigning Pontiac dual-control cars to schools giving behind-the-wheel driver training. Since the supply is limited, cars will be assigned to schools largely on the basis of hours per week devoted to road training and the qualifications of the instructor. Two or more schools may cooperate to obtain a car.

The major items of expense to the school will be: insurance, maintenance

and operation, getting the car from the nearest Pontiac zone office and returning it and a fee of \$25 for installation and use of dual controls. Additional information can be obtained from the Traffic Engineering and Safety Department, American Automobile Association, Pennsylvania Avenue at Sixteenth Street, Washington 6, D. C.

TRANSPORTATION

New Bus Law in New York State

According to a new law in New York State effective next January 1, school buses must have at least one flashing red signal lamp, front and rear, with a stop sign across the face of the lens to be kept lighted when children are entering or leaving the buses. Other cars are required to stop only when the red lights are flashing. Under the present law all approaching vehicles must stop when a school bus stops. The new law requires that school buses be identified as such with large signs in the front and back.

MISCELLANEOUS

Chicago School Board Head Resigns

With the advent of Chicago's new mayor, Martin H. Kennelly, and the departure from the local scene of former mayor, Edward J. Kelly, the president of the Chicago school board, James B. McCahey, has resigned. Mr. McCahey has long been the storm center of civic groups and leaders campaigning for the improvement of the school situation. Mayor Kennelly in his inauguration address stated his belief that the schools should be kept out of politics.

Pepsi-Cola Scholarships Awarded

A total of 38,364 high school seniors throughout the United States took part in the third annual Pepsi-Cola college scholarship competition. One hundred twenty-six lucky pupils received four year scholarships at the colleges or universities of their choice. Included are full tuition and a grant toward maintenance and traveling expenses. The highest ranking winner in the country was Lyle McBride, 17, of Omaha, Neb.; the runner-up and highest girl winner was Nancy Remley, 17, of Allentown, Pa.

Encyclopaedia Offers Scholarships

Four scholarships for research aimed at the continued improvement of children's encyclopedias are being offered for 1947-48 at the University of Chicago by Encyclopaedia Britannica Inc. This is the third year the scholarships have been offered.

Applicants must have the bachelor's



Your first experience with BRITEN-ALL will be a delightful surprise. You'll be amazed how quickly and easily BRITEN-ALL cleans the dirtiest floors. You'll marvel at its penetrating power. BRITEN-ALL actually cleans the pores in the floors . . . makes floors completely refreshed and sanitary—the SAFE way. There's nothing in BRITEN-ALL to injure the finest of floors. Try it.

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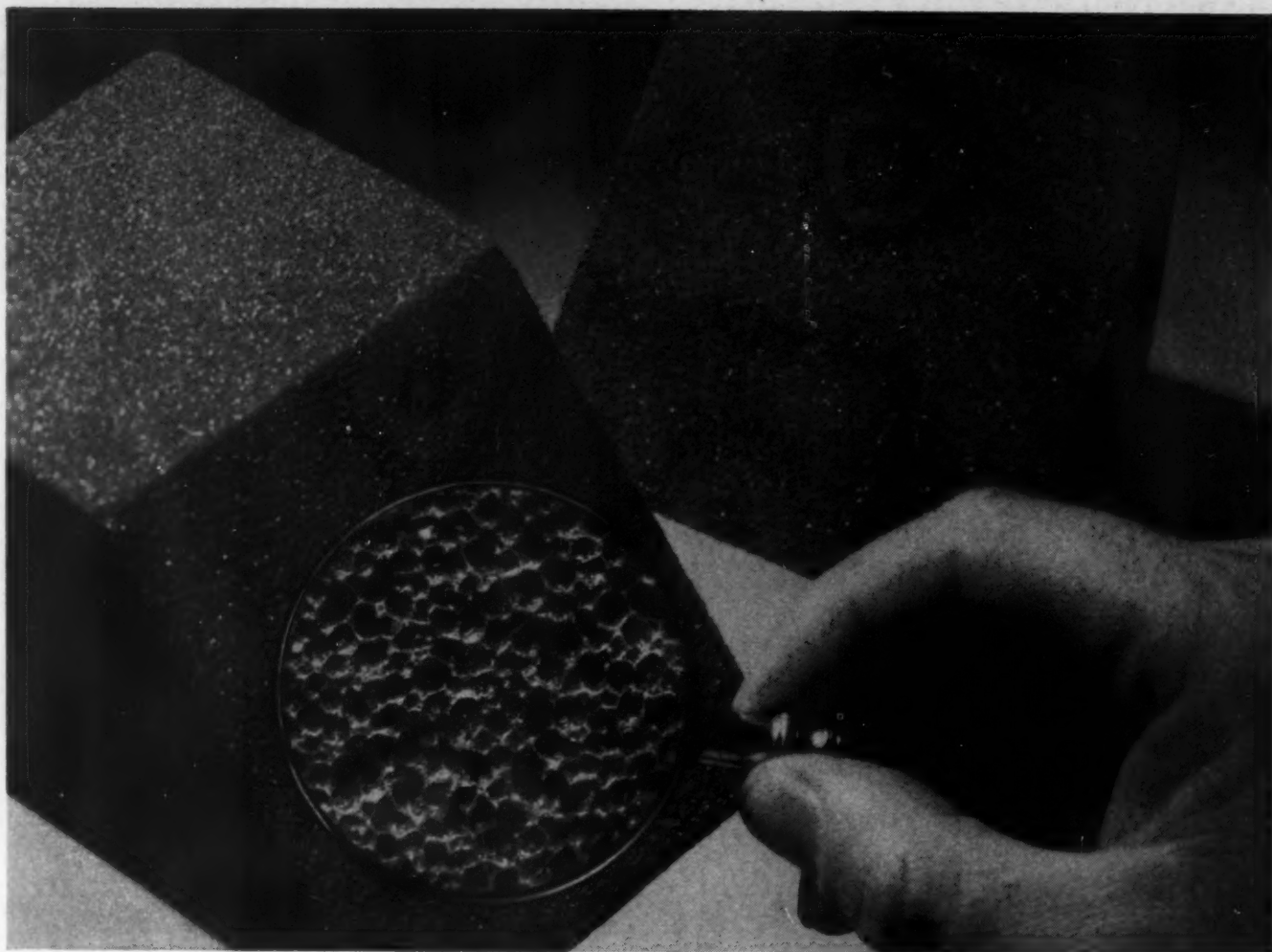
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When you are figuring insulation, our engineers will be glad to help you decide on the *proper thickness* of PC Foamglas to give you efficient, permanent insulation. Meanwhile, send the coupon for your selection of our helpful, informative free booklets. Pittsburgh Corning Corporation, 632 Duquesne Way, Pittsburgh 22, Pa.

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degree or its equivalent in work experience and activity and should apply to Miss Frances Henne, assistant professor in the graduate library school. Winners will be selected by an eight member committee.

Scholarship students work on creative independent research projects, collecting information relative to the content of children's reference works and their efficient utilization. The projects involve preparation of test articles at the elementary level, making experiments with encyclopedic material in public schools and consulting with teachers and experts in the field.

SUMMER COURSES

Workshop in Administration

The school of education of the University of Denver is sponsoring a work conference on Problems in School Administration to be held in Denver for five weeks from June 16 to July 18. The area of study for the first week is Curriculum Construction and Revision; second week, Problems of Staff and Personnel; third week, Problems of School Finance; fourth week, Problems of Schoolhouse Planning and Construction;

fifth week, Problems of School-Community Relations.

The fee is \$60 for five weeks or \$15 a week. Attendants may enroll for one week, five weeks or any combination of weeks but conference membership is limited to 50 at any one time. Further information can be obtained from Dr. W. D. Asfahl, School of Education, University of Denver, Denver 10, Colo.

Purdue's Summer Workshop

Purdue University's eighth annual workshop for school administrators will be held from July 7 to 19. The central theme will be Improving and Expanding Educational Programs. There will be four divisions organized around the following study areas: (1) the rural community school, (2) city and town school administration, (3) secondary school administration, (4) secondary school curriculum and guidance.

Each student may register for only one division. The tuition is \$20. The men's residence halls of the university will provide housing. Applications should be received not later than June 1. For further information, write to Dr. B. L. Dodds, Education Building, Purdue University, Lafayette, Ind.

Summer Course on United Nations

A college course, the first on the United Nations to be undertaken through sponsorship of the American Association for the United Nations (formerly the League of Nations Association), will be given this summer at the State Teachers College at Oneonta, N. Y. The purpose is to equip teachers for the task of explaining the United Nations as well as to prepare teaching materials for elementary school pupils.

It will be a six weeks' course for prospective teachers, occupying four and one half hours five days a week, beginning June 30, and will be given by Agnes Nelson of the Oneonta faculty. The course will include a trip to Lake Success to visit the United Nations.



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Paralleling the evolution of teaching, thousands of Sheldon Student Chemistry Tables have been installed in the nation's schools from coast to coast. The outstanding service given by Sheldon tables over a period of forty years is positive proof of their functional and structural superiority. Today, Sheldon science tables incorporate every improvement that long experience and continuous research have been able to suggest.

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Coming Events

American Association for Adult Education, U. S. Hotel Thayer, West Point, N. Y., May 12-15.

American Education Week, November 9-15.
Association of School Business Officials, Grand Rapids, Mich., October 6-9.

National Association for Nursery Education, biennial conference, San Francisco, August 27-29.

National Congress of Parents and Teachers, June 2-4, Chicago.

National Council on Schoolhouse Construction, Columbus, Ohio, October 16-18.

National Education Association, representative assembly, Cincinnati, July 7-11.

Proper Painting, Fenestration, and Seating According to the Harmon Technique Brought These Results

- 10 months educational growth in 6 months
- 57.1% less refractive eye problems
- 90.1% less nonrefractive eye problems
- 44.5% less nutritional problems
- 30% less signs of chronic infection

Results obtained in remodeling a Texas school under the direction of Dr. Darell B. Harmon, Executive Director of the Inter-Professional Commission on Child Development.



LUMINALL

the light-reflective paint

used in schoolrooms, covers in one
coat; dries in 40 minutes; very economical

Paint is important in a schoolroom because of its ability to diffuse and reflect light. When children twist, bend, and distort themselves to avoid glare and improper light, they place their bodies under strain and tension to the detriment of their progress in school and body functions. Proper painting, fenestration, and seating are used by Dr. Harmon to afford proper light and secure the remarkable results noted above.

Luminall paint was used in the original experiments which developed this data for Texas schools, and it is widely used by

schools that are modernizing their classrooms to give the children the best possible educational and physical advantages.

The makers of Luminall will be glad to forward a copy of Dr. Harmon's "Light on Growing Children," reprinted from Architectural Record. On receipt of sketches showing dimensions and details of schoolroom, we will furnish specifications according to the Harmon technique without cost or obligation. NATIONAL CHEMICAL & MFG. CO., 3617 South May Street, Chicago 9, Illinois.

LUMINALL

the light-reflective
paint for interiors



Superintendent's Book Shelf

SPEECH FOR THE CLASSROOM TEACHER. By Dorothy I. Mulgrave. Prentice-Hall, Inc., New York City. 1946. \$5.

CHILD DEVELOPMENT AND THE CURRICULUM. By Arthur T. Jersild and Associates. Bureau of Publications, Teachers College, Columbia University, New York City. 1946. \$2.75.

THOMAS HENRY BURROWES, 1805-1871. By Robert Landis Mohr. University of Pennsylvania Press, Philadelphia. 1946. \$4.

USSR: Information Bulletin. Vol. VI, No. 63. Published by the Embassy of the Union of Soviet Socialist Republics, 3031 Gates Road, Washington 8, D. C. 1946. No charge.

LATIN AMERICA WITHIN COURSES IN UNITED STATES HISTORY. By Lynn I. Perrigo, Alice E. Owen and Robert G. Schmidt. Harvard Workshop Series: No. 7. Graduate School of Education, Harvard University, Cambridge, Mass. 50 cents.

YANKEE TEACHER: The Life of William Torrey Harris. By Kurt F. Leidecker. The Philosophical Library, New York City. 1946. \$5.

ABOUT THE CHURCH AS EDUCATOR. By Conrad H. Moehlman. Hinds, Hayden and Eldredge, Inc., New York City. 1946. 15 cents.

FOR THIS WE FOUGHT: Guide Lines to America's Future as Reported to the Twentieth Century Fund. By Stuart Chase. The Twentieth Century Fund, New York City. 1946. \$1.

PUBLICATIONS

Mathematics. A teaching guide developed by the arithmetic steering committee of the board of education of River Forest, Ill., presenting the point of view that mathematics is a logical system of related facts, ideas and principles. River Forest, Ill.: River Forest Public Schools, Curriculum Division, 7756 Lake Street.

"Better Schools for Our Children." A pamphlet prepared by the Hinsdale Coordinating Council at the request of the board of education for the use of citizens in considering the problems of the schools with a view toward improving their facilities. Hinsdale, Ill.: The Hinsdale Coordinating Council.

Audio-Visual Education in City-School Systems. A study by the research division, N.E.A., with the cooperation of the division of audio-visual service giving basic facts and figures on what has been accomplished in making audio-visual equipment and materials available in city-school systems. N.E.A. Research Bulletin 24: 4 (December) 1946. Washington 6, D. C.: National Education Association, 1201 Sixteenth Street, N. W.

War and Human Nature. By Sylvanus M. Duvall. The first of a new series of Public Affairs Pamphlets (No. 125) dealing with international affairs. It presents the psychologist's approach to war and peace, pleading for an understanding of human nature and its relation to war and peace as a basis for world harmony. New York 16, N. Y.: Public Affairs Committee, Inc., 22 East Thirty-Eighth Street. 10 cents.

Food and Nutrition in the Curriculum. A source manual devoted to issues and problems in food and nutrition providing a framework of reference for teachers wishing to enrich their work in nutrition. Brooklyn 2, N. Y.: Board of Education of the City of New York, 110 Livingston Street.

Our Little Folks. Curriculum materials prepared by a committee of teachers as an aid in improving the teacher-learning situation in classrooms of beginners as a part of a program of curriculum revision in Maine. Curriculum Bulletin No. 5, Augusta, Me.: Department of Education. 50 cents.

Opportunities in Fashion, by Alida Vreeland; **Opportunities in Horticulture,** by C. Owen Brantley; **Opportunities in Export,** by Albert L. Abkarian; **Opportunities in Interior Decoration,** by Suzanne Conn. Vocational guidance manuals giving the essential information in each field, including the requirements, analysis of jobs, opportunities and bibliographies. New York City: Vocational Guidance Manuals, 45 West Forty-Fifth Street.

Reading Ladders for Human Relations. The first pamphlet in the Work in Progress series of the Intergroup Education in Cooperating Schools sponsored by the American Council on Education. Tentative materials useful to teachers in the project in improving education for human and group relations. Washington 6, D. C.: American Council on Education, 744 Jackson Place. \$1.

NAMES IN THE NEWS

(Continued From Page 55.)

trict. He succeeds Elmer Carlson who is resigning at the end of the current term.

Ellsworth Wilson is supervising principal at Spencerport, N. Y.

Sturgeon Cromer, principal of Globe High School at Phoenix, Ariz., has resigned to become superintendent of schools at Flagstaff. Willard R. Helmke, dean of boys at the high school, will succeed him as principal.

Fred Leonard is the new principal of the high school at Willits, Calif., succeeding Roy Good who resigned in protest against what he termed petting in

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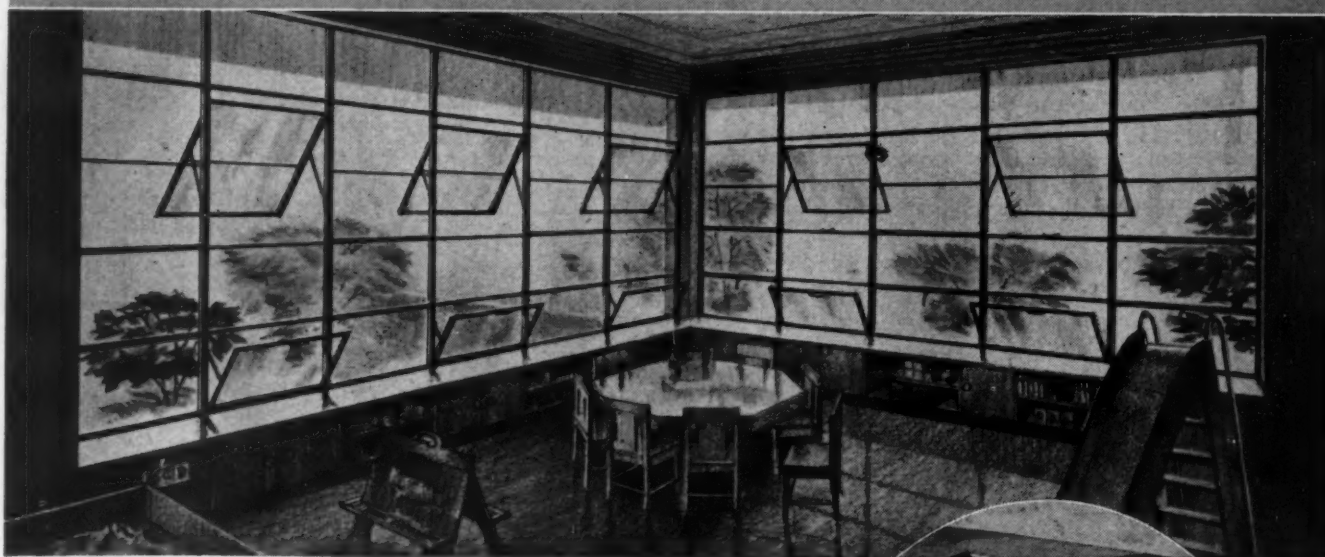
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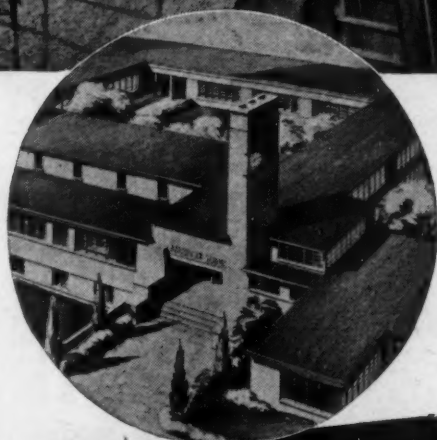
A school's kindergarten room, for example, needs ample daylight for young eyes . . . with windows low so youngsters can see out . . . with abundant fresh-air ventilation . . . with all vents so designed that when open the children cannot fall out of windows.

Such windows are offered in the three new lines of Fencraft units which provide new high quality, lower cost and important installation economy.

Built of specially-designed steel casement sections, by craftsmen in the shops of America's oldest and largest steel window manufacturer, all Fencraft Windows beautify both the outside and the inside. They provide permanently easy operation, safe cleaning, lasting weather-tightness, firesafety and low maintenance cost.

For singular economy in cost, all types and sizes are standardized. And installation cost is minimized by the use of uniform installation details, plus the co-ordination of window dimensions with those of wall materials.

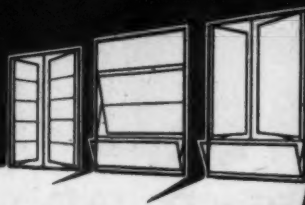
Eminently suited for America's finest school buildings, Fencraft Windows are now being shipped to many localities. For product details, mail the coupon below.



Suggestion:

In a school's kindergarten room, combine units of Fencraft Standard Intermediate Projected Windows, such as type 416 (illustrated). Note that sill-vents, opened, guard against drafts, prevent children from falling out.

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school corridors, an action which set off a series of pupil strikes. In a special election, voters named a school board majority that opposed Mr. Good's policy.

Miscellaneous

M. G. Neale, professor of educational administration, University of Minnesota, has been granted a leave of absence for the spring quarter. He has been sent by the War Department, in response to a request from General MacArthur's headquarters, to Japan and Korea to advise and assist in developing a plan for financial support of education in those countries, in accordance with plans for reorganization of administrative structure and control. He will return to the University of Minnesota about June 15.

Kendric N. Marshall of Brockton, Mass., has been appointed director of the Division of International Education Relations of the U. S. Office of Education. Mr. Marshall replaces **Harold R. Benjamin** who has returned to his position as dean of the college of education, University of Maryland. Mr. Marshall, for the last four months, has been chief of the Near and Far Eastern educational relations section of the division he now heads.

Thomas R. Cole, professor of school administration, University of Washing-

ton college of education, has been requested by General MacArthur's headquarters in Japan to serve overseas for sixty days as a consultant to the Supreme Commander's staff, relative to educational problems. His work will be to advise and assist officials of Japanese and Korean institutions of higher learning and the staff of the ministry of education in Japan and the department of education in Korea in establishing methods of accreditation for institutions of secondary and college levels.

In the Colleges

Colgate W. Darden Jr., former governor of Virginia and chancellor of the College of William and Mary, has been named president of the University of Virginia. Mr. Darden becomes the university's third president and is succeeding **Dr. John Lloyd Newcomb** who has headed the university since 1931. Dr. Newcomb announced his retirement last fall when he reached the age of 65. Mr. Darden will take office June 23.

John A. Ross Jr., president of Clarkson College of Technology, Potsdam, N. Y., for seven years, is planning to retire from active work June 1. His resignation will take effect October 1, 1948, after his seventieth birthday. Dr. Ross has been connected with the college since 1911.

The Very Rev. William J. Schlaerth has been named rector and president of Le Moyne College, new Jesuit institution under construction at Syracuse, N. Y., succeeding **The Very Rev. Anthony J. Bleicher**.

John M. Sayles, president of New York State College for Teachers at Albany since 1939, retired in March after forty-five years of service to education.

Deaths

Frank A. Jensen, superintendent of La Salle-Peru High School and La Salle-Peru-Oglesby College at Peru, Ill., died March 31 at the age of 65. Mr. Jensen went to La Salle-Peru in 1935 after twelve years as superintendent of schools at Rockford, Ill. He was an authority on textbooks and supplies.

William B. Hatcher, president of Louisiana State University at Baton Rouge, died recently at the age of 58.

Oscar P. Ballintine, principal of the Har-Brack Union High School, Natrona Heights, Pa., since 1924, died recently of a heart attack. He was 61 years old.



Frank A. Jensen

The "Y and E" Executive Suite is a balanced group of modernly designed office furniture—finished in Warm Neutra-Tone Gray for color harmony and objectively modeled for the prestige, comfort and efficiency of top management.

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Chassis offered by Dodge are engineered and "Job-Rated"—*exclusively for school buses*. They meet all of the exacting standards that have been established by NEA.

Your Dodge dealer will gladly explain the many advantages of Dodge "Job-Rated" chassis, particularly the *safety* and *dependability* they will bring to your school bus operation. See him—soon!

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SCHOOL BUS CHASSIS FOR BODIES ACCOMMODATING 30, 36, 42, 48, 54 AND 60 PASSENGERS



160" wheelbase with 109 H.P. engine. Accommodates bodies to carry either 30 or 36 pupils.



178" wheelbase with 109 H.P. engine. Accommodates bodies to carry either 36 or 42 pupils.



200" wheelbase with 109 H.P. engine. Accommodates bodies to carry either 42 or 48 pupils.



220" wheelbase with 114 H.P. "Job-Rated" engine and 5-speed transmission. Will accommodate bodies to carry 54 pupils.



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DODGE "Job-Rated" SCHOOL BUS CHASSIS

FIT THE JOB... SAVE MONEY



This car is running with an **"EMPTY"** gas tank!



Even after the gas gauge says "empty" a modern car can keep going for a good many miles. Here's why.

Automobile manufacturers know human nature. They figure that, sooner or later, we'll get careless, or misjudge how far we have to go. So the gas gauge is set to show "empty," while there are still a couple of gallons left in the tank.

This reserve supply is a swell idea that has kept many a family from getting stuck.

It's an even better idea for a family's budget!

A *reserve supply of dollars* is a lifesaver in case of financial emergency. It will keep your family going if sudden illness strikes, or unexpected expenses show up.

And one of the easiest ways to build just such a cash re-

serve is *buying U. S. Savings Bonds on the Payroll Savings Plan!*

Millions of Americans have discovered that *automatic* Bond buying is the quickest, surest way of piling up an emergency fund. And of saving money for other things, too —important things like college for the kids, or a home in the country, or a cash income for later in life.

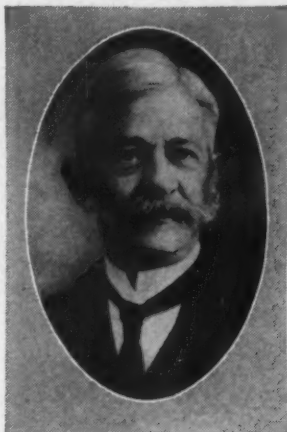
What's more, the money you save in Bonds buckles right down and starts *making more money*—in just 10 years you get back \$100 for every \$75 you put in today.

So keep on buying Bonds on the Payroll Plan. Buy all the extra Bonds you can, at any bank or post office. And remember, you're helping your country as well as yourself —for every Bond you buy plays a part in keeping the U. S. strong and economically sound!

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The Demand for New Textbooks Exceeds the Supply

It is estimated by competent authorities that it will probably be two years before the textbook industry can meet the demand of peacetime curricula.

Textbooks are essential to any educational program. A shortage of textbooks means opportunities lost for the pupils.

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NEW BOOKS SHOULD BE PROTECTED.

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| 5. Double-Action Auto-Lock (Pat. Pending) | 11. Finger Grip Carrying Handle |
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Adaptable to all projection conditions, instantly set up . . . 1947 Radiant Screens make picture projection more effective, more enjoyable.

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The Radiant "DL" here illustrated is portable, sturdy, compact, easily set up, quickly adjustable. The Radiant line includes Wall, Ceiling and Table Models in sizes 22" x 30" to 20 feet by 20 feet and larger.



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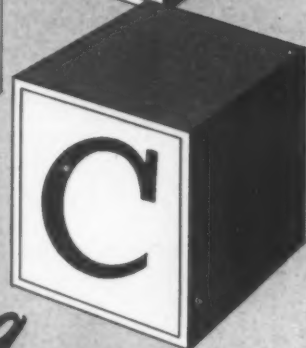
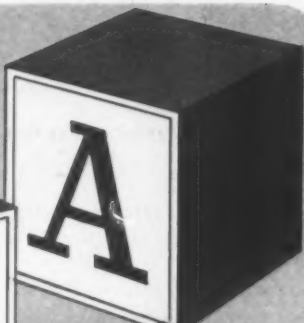
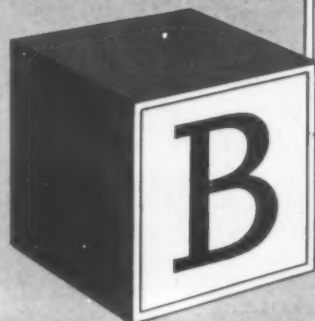
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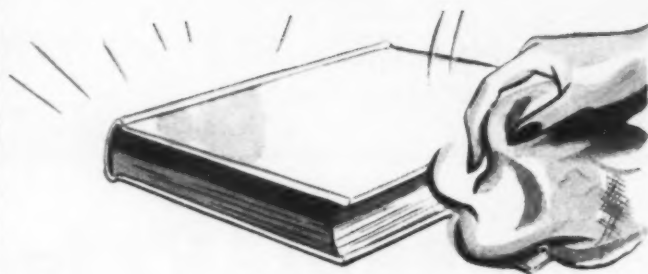


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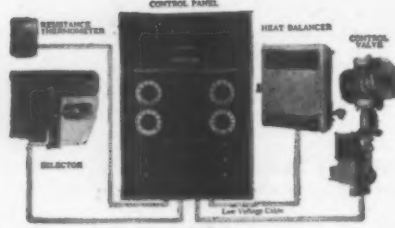
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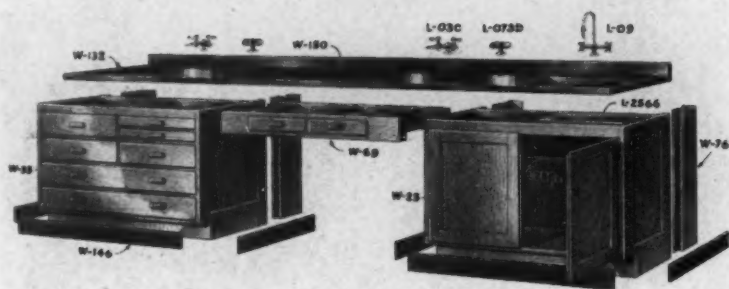
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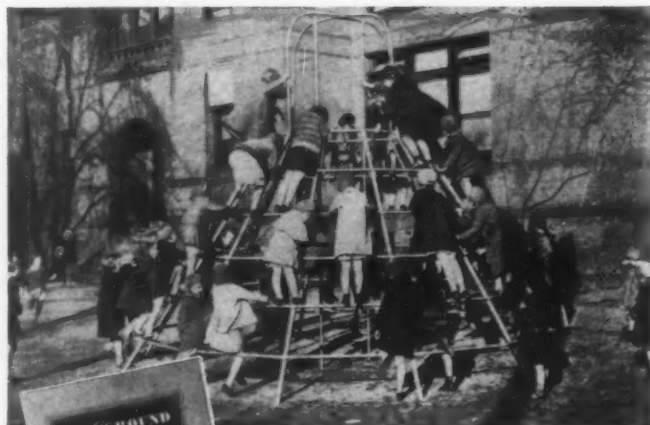
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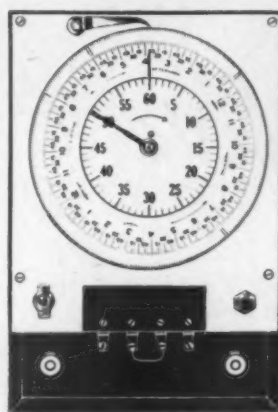
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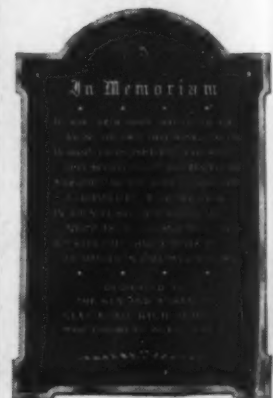
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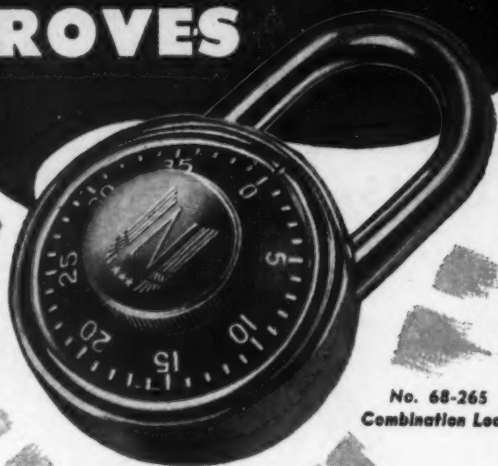
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2. Designing, Engineering and Expert Fabrication.
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more AUTOMATIC SHARPENERS soon

thanks for being so patient . . .
DEMAND still exceeds SUPPLY . . . but a steadier flow of
raw materials is expected soon. As production increases
other regular Automatic models will rejoin the line . . .
and some brand NEW ones, too.

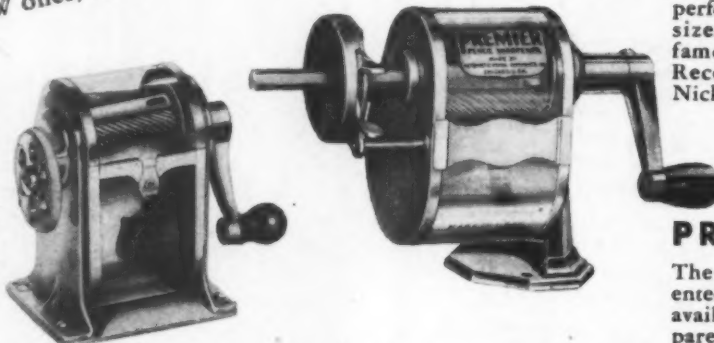


GIANT

Unsurpassed for reliable, all around performance. Revolving disk for all sizes pencils, crayons, etc., and famous deeply undercut cutters. Receptacle: Transparent or solid Nickeled Steel.

DEXTER

Aristocrat of hand feed sharpeners with its fine double-bearing cutter suspension, the centering disk for various size pencils, and long-life cutters. Transparent receptacle.



PREMIER IS BACK

The Premier machine with its patented Automatic Feed will again be available by Fall. Receptacle: Transparent or solid Nickeled Steel.

Automatic PENCIL SHARPENER

Division of Spengler Loomis
Mfg. Co. • Chicago, Illinois

S E R V I C E

Just preceding the back cover in this and every issue — there's a detachable, postage prepaid card . . . to help you get product information on one or a dozen items with a minimum of effort and time. As you read the advertising pages and the descriptions in the "What's New" section, check the items that interest you . . . use the card. Sign it, mail it. The manufacturer of each item checked will be asked to send you complete details, no charge, no obligation.

THE NATION'S SCHOOLS

CLASSROOM

Teaching Aids

by **WESTON**

LARGE COLORFUL WALL CHARTS

completely illustrating the three basic types of instrument-movements...Phantom views showing details of construction and operation.

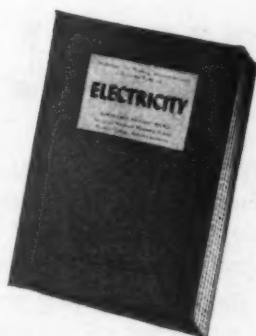


INDIVIDUAL CHARTS

Notebook-size reproductions of the large wall chart. Available for distribution to individual students.

MONOGRAPH NUMBER 3, ON ELECTRICITY

covers suggested approaches to teaching this subject in secondary electrical, electronics and science classes.



*In writing for these teaching aids simply state school and class in which they will be used.
Weston Electrical Instrument Corporation, 588
Frelinghuysen Avenue, Newark 5, New Jersey.*

WESTON Instruments

PANEL, PORTABLE, AND LABORATORY INSTRUMENTS • TUBE CHECKERS
TEST EQUIPMENT • ILLUMINATION METERS • SENSITIVE RELAYS
THERMOMETERS • PHOTRONIC CELLS

ATKINS

Silver Steel SAWS



How well will your pupils meet the challenge of their chosen trade? The answer to that hinges in largest measure on the assurance they acquire through your teaching—assurance that can be developed fullest through the use of *right* tools. Atkins Saws are exactly *right* . . . in set and keenness of teeth . . . in blade and handle design . . . in ease of handling and cutting accuracy . . . in every way to shorten the way to skill that spells success. And they're *right* for your budget, too. Made of famous "Silver Steel," they have the stamina to stand up under daily school-shop use—ruggedness to resist the roughest handling.



E. C. ATKINS AND COMPANY

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402 S. Illinois St., Indianapolis 9, Indiana
Branch Factory: Portland, Oregon
Atlanta • Chicago • New Orleans • New York • San Francisco



The 40th Anniversary of INTERNATIONAL TRUCKS

This year, 1947, is International Harvester's 40th Truck Anniversary.

FORTY YEARS of International Truck progress, hand-in-hand with the progress of American transport.

FORTY YEARS that have seen the development of the International Truck Line from a single wagon-like vehicle. Today the International Line is the most complete built by any manufacturer. It includes 21 basic models with gross weight ratings ranging from 4,400 to 90,000 pounds. These 21 basic models convert and adapt into more than 1,000 different transport vehicles.

FORTY YEARS that have seen the rise of International Trucks to enviable leadership. For the last 16 years more heavy-duty Internationals have served American industry than any other make.

Yes, the forty years of International Truck history have been years of progress. This progress culminates today in International's great, new Fortieth Anniversary Line of Trucks—International KB Models.

Forty years of progress, with greater goals ahead.

Motor Truck Division

INTERNATIONAL HARVESTER COMPANY
180 North Michigan Avenue Chicago 1, Illinois



Tune in James Melton on "Harvest of Stars" Sunday—NBC Network

INTERNATIONAL School Buses

What's New FOR SCHOOLS

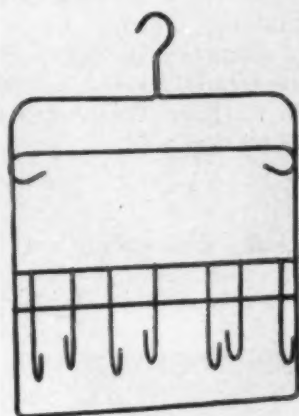
The easiest way to get more information about the new products described in this section is to use the postage paid card opposite page 120. Just circle the key number on the card which corresponds with the number in the headline of each item. The NATION'S SCHOOLS will send your request to the manufacturer.

No More

Locker Room Odors, Mildewed Equipment

No longer need locker inspection disclose mildewed and smelly heaps of expensive equipment. A sturdily constructed uniform hanger that keeps clothes aired and is large enough for complete sets of athletic equipment is now available. Its large hooks provide room for every item of equipment in the athletic uniform: shoes, helmets, pants, jerseys and shoulder pads.

Durably constructed of heavy gauge steel doubly welded at all joints and wire crossings, this space saver comes with a lacquer finish or a noncorrosive, multi-dip, molten metal finish. Neither finish leaves sharp, jagged ends nor will it chip or flake off, according to the manufacturer. Its features of low cost, reduced locker room odors, convenience and proper maintenance of expensive equipment recommend this hanger as "desirable" for up to date athletic departments.—American Wire Form Company, 269-271 Grant Avenue, Jersey City 5, N. J.



NS 792

most obdurate enamels, fifteen. Large sheets of paint can then be peeled off and the remainder quickly stripped off with steel wool or scraper. After wiping down with a rag soaked in Turco L-800, itself a mild paint stripper, all gums, films and residual matter are completely removed and the surface is ready for repainting without further processing.—Turco Products, Inc., 6135 South Central Avenue, Los Angeles 1, Calif.

New Cushion Sheet

NS 794

Improves Preparation of Stencils

With the development of a new type of cushion sheet announced by the A. B. Dick Company, better visibility is provided in cutting stencils. Known as Mimeograph "Type-White," the new product is for use with the blue Mimeotype stencil sheet. Copies produced from a stencil using the new cushion sheet are said to be clear and easy to read, with sharp letter outlines.—A. B. Dick Company, 720 West Jackson Boulevard, Chicago 6, Ill.

Paint Stripper Works

NS 793

On Vertical as Well as Horizontal Surfaces

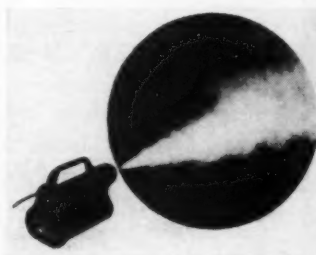
Paint-Zip, a new, nonflammable, fast acting, liquid paint stripper, can be used on vertical as well as horizontal surfaces because of its clinging characteristics. Since it will not raise the grain, its manufacturer especially recommends it for wood but it is said to be effective for removing paints from all types of metals as it will not cause oxidation or discoloration. Owing to its unusually slow rate of evaporation and vigorous penetrating action, Paint-Zip generally requires only one application despite the number of paint layers.

Paint-Zip contains no abrasives, gives off no dangerous fumes and is said to be so simple to use that even an inexperienced operator can obtain uniformly satisfactory results. It can be applied by swabbing with a brush, by a spray gun, by the flow-on method or by immersion, action starting immediately. Most paints require about five minutes; the

This Gun Shoots Gas

NS 795

Not Bullets—Target: Insects



Representing an entirely new principle of insect control, the new Commando Aerosol Gun emits a dry gas that is deadly to cockroaches, mosquitos, flies, bedbugs, spiders, moths, fleas, ants, silverfish, weevils and many other insects. It is non-

toxic, however, as proved by the American Research and Testing Laboratories, for it leaves no oily film and will not contaminate food products, says the manufacturer. Moreover, it has no unpleasant odor. Electrically operated on 115 volt A.C. or D.C. current, the gun has no moving parts and does not employ steam.

Together with Commando Aerosol Concentrate, the gun is expected to find wide application in schools and colleges. To operate, the filler cap is removed from the back plate and a charge of the concentrate poured in. A few minutes' heat are required for changing the liquid to gas by means of a thermostatically controlled heating process after which the gun is ready for several hours' operation. Sufficient pump pressure results to discharge the dry gas

8 to 10 feet. The gun weighs 6 pounds, is 12 inches long and 9 inches high and all parts are self contained in its molded plastic case.—**Commando Division, Mayfair Industries, Department S-2, 2442 Irving Park Road, Chicago 18, Ill.**

Combination Lawn Treatment

NS 796

Clears Out Weeds, Feeds Grass

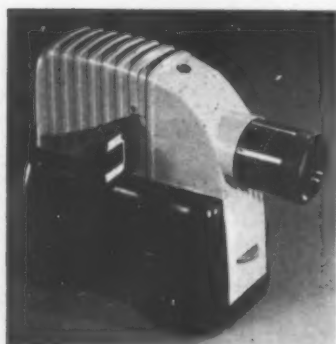
A new combination lawn food and weed control compound has been developed that not only clears out the weeds but feeds the grass to thicker, fatter growth to fill in the openings left by dying weeds. Although this new commercial product has physical properties that make it easy to spread evenly, it coats weed leaves with enough fine powder to destroy root and all. Protein meal is included in the grass food to produce a slow, long lasting supply of nitrogen and other important elements; di-ammonium phosphate, new in soil nutrient work, furnishes quick sources of nitrogen and phosphorus; potassium in the form of potash gives the grass tone and vigor.

The combination of weed eradicating and grass nourishing is reported to do more than either treatment by itself. Observation has shown that weed control alone may set grass back temporarily but a simultaneous meal of the right lawn food will offset this effect. Some individuals have objected to extra mowing resulting from ordinary feeding. Oddly enough, although the turf treated was of better color and vigor, the grass did not grow as fast after the dual treatment. Slowly available nutrients in combination with the weed control are believed to bring about the delaying action.—**O. M. Scott & Sons Company, Marysville, Ohio.**

New Slide Projector's

NS 797

Lumenized Optics Increase Screen Brilliance



By means of a microscopically thin coating of magnesium fluoride on the lenses to reduce internal reflection and increase light transmission, the new Kodaslide Projector, Master Model, is said to deliver more light to the screen thereby improving the projection of 2 by 2 inch transparencies. Since its uses range

all the way from home to theatrical projection, it is expected to be particularly advantageous in the school building. It is supplied with a 1000 watt projection lamp and can be used with any of four other lamps of from 300 to 750 watts; five projection lenses are available: a 5 inch f:2.3 Projection Ektar; a 7½ inch f:2.3 Projection Ektar; an 11 inch f:3.7 Projection Ektar; a 5 inch f:3.5 Projection Ektanon, and a 7½ inch f:4 Projection Ektanon. Used with a 1000 watt bulb, the Master Model will project a transparency 76 feet with the 5 inch f:2.3 Ektar lens, yielding a screen image 228 inches wide. The 11 inch f:3.7 Ektar will throw an image 192 inches wide 140 feet.—**Eastman Kodak Company, Rochester 4, N. Y.**

New Handbook

NS 798

On Construction Data Available

The A. C. Horn Company, Inc., pioneer in the formulation and manufacture of materials and in the development of methods for the protection and decoration of structures and for making them water resistant, has available a handy new booklet, "Horn Construction Data and Hand Book." Its completeness is indicated by the general index which lists sections on calking and glazing compounds, construction details, floor materials, how to measure flat surfaces, material tables, miscellaneous specialties, paints and coatings for both exteriors and interiors, waterproofings, dampproofings, admixtures and other products and weights and measures tables. The handbook is so organized as to make it a valuable and convenient reference whether construction is under way or contemplated.

Attached to the handbook is a business reply card that will make it easy to request information on such problems as waterproofing, dampproofing, building restoration, floor treatments, technical paints and concrete floor repairs.—**A. C. Horn Company, Inc., 43-36 Tenth Street, Long Island City 1, N. Y.**

Radio, Electronic Parts

NS 799

For Classroom, Laboratory, Shop



A new 1947 catalog, offering a comprehensive listing of radio and electronic parts and equipment for classroom, laboratory and shop, has been announced by Allied Radio Corporation. More than 10,000 units and parts, completely indexed, are listed in its 164 pages. Every need, from instruments, recording equipment and transcription players to books, manuals, tools, parts, hardware and miscellaneous equipment, is covered. One

section is devoted to electronic sound equipment for school applications, such as data for the proper selection of amplifiers, public address equipment and intercommunication systems for use in classrooms, lecture halls, auditoriums and outdoor stadiums. Too, a complete selection of the latest model radio sets, communications receivers, record players and phonograph and recording accessories, is provided.—**Allied Radio Corporation, 833 West Jackson Boulevard, Chicago 7, Ill.**

These Calculators

NS 800

Are Easy on the Eyes

By manufacturing its calculators in a soft brown color and a nonreflecting finish, Burroughs has eliminated all reflection and glare in addition to giving these machines a smart, modern appearance. The new color treatment extends even to the machine keytops where harmonizing tones of brown and ivory have replaced the former black and white.

A number of operating advantages are offered in the Burroughs Electric Duplex Calculator: smooth, efficient

electric operation; a column lock that prevents depression of more than one key at a time in the same column; chromium plated hand grips that make the machine easy to lift. It registers the result of individual calculations in its front dials and automatically accumulates a grand total in the rear dials. Any amount registered in the front dials can be subtracted instantly from the grand total without the use of complements by means of the "subtract" bar.

The calculators have wide application in many high speed figuring jobs, such as wage calculation and analysis, invoice and purchase order extension, sales audit and analysis, prorating and percentage calculation, production analysis and statistics.

Both hand and electric styles are available in models ranging from 6 to 14 column accumulating capacity.—**Burroughs Adding Machine Company, 6071 Second Avenue, Detroit 32, Mich.**

No "Cross Talk"

NS 801

On This Electronic Intercom System



The Amplicall Electronic Intercommunication System, said to mark a significant advance in the design of business communication systems, is announced by the Rauland Corporation. Its distinctive

new features include "visual" busy signal, individual locking type of push buttons for station selection, illuminated "on-off" volume control, plug-in cable connections and a balanced line wiring system which not only reduces the cost of installation but also prevents "cross talk."

These new systems are available with facilities for the use of up to 24 master stations, permitting as many as 12 conversations simultaneously. The master station unit can be obtained with or without a handset which affords completely private conversation. Master stations and substations in versatile combinations and styled to harmonize are available to meet the specialized needs of institutions for communication both within and between departments. The new Amplicall is housed in a walnut plastic case.—**Rauland Corporation, 4245 North Knox, Chicago, Ill.**

Floor Covering Accessories

NS 802

Presented in Colorful Catalog

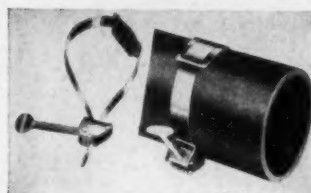
"Tile-Tex Asphalt Tile—Floors That Endure" is the title of the latest catalog of the Tile-Tex Company, Inc., specialist in the manufacture of asphalt and composition floor tile and the accessories necessary to the proper installation of these products.

The catalog's color illustrations vividly present the 1947 color range and suggested designs for both floor covering and wall covering. Specification data and descriptions of Tile-Tex Asphalt Base and Accessory Strips and of maintenance materials are included. Versatility in application of the products is stressed as is their high asbestos content which makes them highly fire resistant.—**The Tile-Tex Company, Inc., 1232 McKinley Avenue, Chicago Heights, Ill.**

Here's a Clamp

NS 803

For Stopping Pipe Leaks



The Patchmaster, a new all purpose pipe leak clamp, is expected to have wide application in the school field. Designed to stop leaks on low or high pressure pipe ranging in size from 1/2 inch to 4

inches in diameter, the Patchmaster consists of a corrosion resistant, stainless steel Marman Universal clamp, a specially designed patch plate of stainless steel annealed sheet, which forms to the pipe contour naturally, and a Hycar oil resistant pad.

Patchmasters have been tested at 800 pounds per square inch without leaking. They are available in four popular sizes to handle all pipe diameters up to 4 inches and can be used over and over without any efficiency loss. One clamp fits any pipe size up to the maximum diameter of the clamp. When installed and the clamp is tightened, pressure is brought against the pipe and positively seals the leak, according to the manufacturer.—**Marman Products Company, Inc., 940 West Redondo Boulevard, Inglewood, Calif.**

Catalog on Entomology

NS 804

Lists Supply Services, Is Teaching Aid

Ward's Catalog No. 479 not only offers complete supply services in entomology for secondary school teachers, students and collectors but is useful in itself as a teaching aid and collector's guide. It pictures and describes equipment for collecting, mounting and displaying insect specimens and lists and briefly reviews books and manuals in entomology, ranging from beginner's guides and general literature to publications on special phases of the subject.

Described, too, are Ward's Insect Explano-Mounts which combine actual specimens with text and drawings. Designed especially for classroom use, they depict the life histories of insect enemies, including the principal house and crop pests.

This special 1947 catalog is available upon request.—**Ward's Natural Science Establishment, Box 24, Beechwood Station, Rochester 9, N. Y.**

Washroom Brochure

NS 805

Aid in Planning and Maintenance

Findings of surveys in more than 300,000 American washrooms have resulted in a new brochure containing many suggestions for improving personal service facilities. The outstanding feature is a spread of 16 pages of typical layouts, including large and small plant washrooms, locker rooms, school washrooms, lounges, supply closets, executive and office building washrooms and recreation rooms. James S. Hatfield, Philadelphia architect, acted as consultant and prepared the scale drawings.

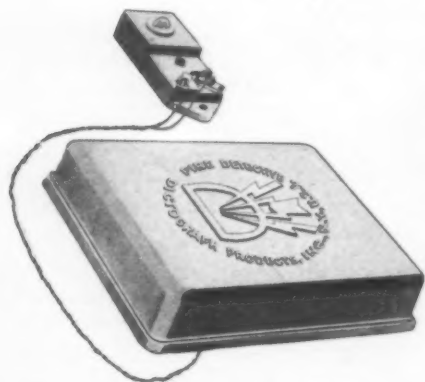
The Scott Paper Company, which has the brochures ready for distribution through its washroom advisory service, emphasizes the fact that control of traffic flow and ease and economy of maintenance were given full consideration

by the consultants. The information presented is expected to be most valuable in its modern approach as a guide for architects and those connected with sanitation and maintenance in schools and other public buildings.—**Washroom Advisory Service, Scott Paper Company, Chester, Pa.**

In Case of Fire

NS 806

This System Will Warn



Anyone can install the new Fire Detective by Dictograph simply by connecting wires. From the moment of its installation, fire will never catch the building occupants unaware, says the manufacturer, for, when temperature near

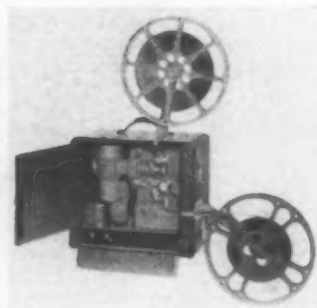
a thermal unit reaches 140 degrees, a loud bell starts ringing automatically—and keeps on ringing! In addition to its features of low cost and ease of installation, it works on its own power; it works even when an electric short circuit starts a fire.

Fire Detective is powered by war born "R"-Cells whose life is measured in years not in months. This alarm system can always be self tested, it is pointed out, and it is on the alert twenty-four hours a day.—**Dictograph Products, Inc., 580 Fifth Avenue, New York 19, N. Y.**

This Projector's

NS 807

Pictures Are Easy on the Eyes



Designed around a novel intermittent mechanism, a new 16 mm. sound film projector has been released by the Kolograph Corporation. Called the "Rock-Still" intermittent, the mechanism is said to provide pictures that are easy on the eyes. The new intermittent is completely immersed in oil, runs silently,

prevents most film wear, avoids torn sprocket holes and is guaranteed against all defects and wear, according to the manufacturer.

Special development of the cooling system permits use of the instrument with a 1250 watt lamp without burning the film or causing appearance of the well known "door-knob" on the globe. Designed for use from 117 volt either A.C. or D.C. source, this projector features a 2 inch coated lens, f:1.6, as standard equipment. The lens mount, however, will take any other type or size. Because the unit will accommodate 22 inch reels holding up to 4400 feet of film, or the equivalent of about two hours' continuous running, frequent program interruptions are avoided. The

audio amplifier employs six tubes in a special trouble free and distortion free circuit and assures that exacting musical passages will be reproduced with fidelity.

The amplifier and its associated equipment can be used separately as a public address system and the projector will accommodate silent as well as sound films. The unit, entirely portable, is built into two cases, one containing the projector and the other the loud-speaker.—**Kolograph Corporation, 223 West Maryland Street, Indianapolis, Ind.**

Jeep for Janitor

NS 808

To Speed Maintenance Work



"Janitor's Jeep" is the descriptive title conferred on a new product on wheels that should expedite the work of maintenance employees. Capable of conveying materials and equipment up to ½ ton quickly to any floor or location, it will speed up the mopping and waxing of large floor areas, carrying ice or refuse,

cleaning and similar chores, according to the manufacturer. Standard equipment consists of a 27 gallon, 18 by 26 inch heavy corrugated Witt can and cover, two 14 quart dual pails, a rack for polish can, scrub brushes, rags and other cleaning accessories. Ring supports are provided for carrying brooms and brushes in an upright position. The Jeep is of all steel construction with an arc welded frame, has puncture proof rubber tires and a swivel type of front caster for maneuverability. Its overall dimensions are 32½ by 34½ by 36 inches and it is obtainable in any color desired.—**H. J. Barrett, 1908 Walnut Street, Philadelphia 3, Pa.**

Small Pre-Dishwashing Machine

NS 809

Designed for Cafeterias, Fountains

The scrapping and pre-washing features of the Salvajor, now used in many institutions throughout the country, are available in a new smaller model designed for use in establishments where dishwashing space is limited, such as cafeterias and fountains. Only 16½ inches by 24½ inches, the new model is said to be installed easily in drainboards or narrow, soiled dish tables.

The Salvajor, whose pre-washing feature is recommended as a means of attaining cleaner, sterile tableware in the final dishwashing, reportedly offers not only efficiency but economy as well by saving time, labor and money. It traps silverware and small dishes which, in the scrapping operation, are sometimes thrown out accidentally with the garbage. Moreover, a special scrap basket collects, sanitizes and reduces the garbage.

Designated the Salvajor SM-1, deliveries will begin in July, the manufacturer reports.—**Salvajor Company, 118 Southwest Boulevard, Kansas City 8, Mo.**

INDEX TO PRODUCT INFORMATION AND ADVERTISEMENTS

HERE IS AN EASY WAY to obtain information about products advertised in this issue or described in the "What's New" pages. Check the convenient card below, tear out and mail—no postage is required.

The publishers of The Nation's Schools offer this free service with the idea that data on products are an essential part of the equipment of the school administrator's office. When we receive the card from you, we immediately pass on your request to each manufacturer whose number has been checked, with the request that he forward further details promptly. Thus, with a single card, you can get information on as many or as few items as you wish.

Also, this card makes it possible to detach without defacing any essential part of the issue.

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CHICAGO, ILL.

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